DMA Form 1

1 cy BofM, 1 USGS

DEFENSE MINERALS ADMINISTRATION

Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3635

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

_____

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip

To:	700	Date	1/13/55
To:	Operating Com.	Date	1/28/55
To:	Oper Comm	Date	5-2-55
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado
May 23, 1955

Mr. C. O. Mittendorf
U. S. Dept. of Interior
D.M.E.A.
Washington 25, D.C.

Re: Docket No. DMEA-3635 (Uranium)
Western Oil Fields, Inc.
Clear View Claim Group
San Miguel Co., Colorado

Dear Mr. Mittendorf:

Thank you for your letter of May 19, 1955. We assumed the information was confidential, but our client wished us to verify the fact.

Very truly yours,

Geo-Engineering

By L P Gaggini
L. P. Gaggini By Hc

LPG/zl

700

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

Surname copy

MAY 19 1955

Mr. Louis P. Gaggini
Geo-Engineering
304 Main Street
Grand Junction, Colorado

Re: Docket No. DMEA-3635 (Uranium)
Western Oil Fields, Inc.
Clear View Claim Group
San Miguel County, Colorado

Dear Mr. Gaggini:

This is in response to your letter of May 14, 1955, in which you inquire if the information that was used in denying the application for Government exploration aid on the subject property could be made available to you.

I regret to advise that such information is confidential and for Government use only.

Sincerely yours,

G. O. Mittendorf

Administrator

FLKnouse/am/gla
5-18-55
cc to: Admr. Reading File
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J.O. Hosted, Rm. 3210, GSA
Code 700)
Mr. Knouse)
DMEA Field Team, Region III (2)

5/19/55 gh

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

May 14, 1955

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

Re: Docket No. DMEA-3635 (Uranium)
Clear View Group
San Miguel County, Colorado

Dear Mr. Mittendorf:

Reference is made to your letter of May 2, 1955 denying subject DMEA project.

If the information you have in Washington is not too confidential, we would appreciate being informed as to how we can receive it since we would like to refer to it when we make final recommendations pretaining to this property to our clients.

Sincerely yours,

GEO-ENGINEERING

by Louis P. Gaggini
Louis P. Gaggini

LPG:lm

cc: Western Oil Fields, Inc.
P. O. Box 1139
Denver, Colorado

Surname copy

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

Elk
Volin
Trace!
martin
R Johnson

MAY - 2 1955

Western Oil Fields, Inc.
c/o Geo-Engineering
304 Main Street
Grand Junction, Colorado

Re: Docket No. DMEA-3635 (Uranium)
Clear View Claim Group
San Miguel County, Colorado

Gentlemen:

Your application for aid in an exploration project and other information available to us in Washington concerning your 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 a small amount of uranium mineralization on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Mittendorf
by EEG
Administrator

EWEllis/gla
4-27-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J.O. Hosted, Rm. 3210, GSA
Code 700
Mr. Knouse
DMEA Field Team, Region III (2)

Cal

DOCKET COPY

April 29, 1955

Summary or Proposed Project

Object: Denial of application for an exploration project.

Docket No. DMEA-3635

Commodity: Utanium

Applicant: Western Oil Fields, Inc.
1827 Grant Street
Denver, Colorado. All correspondence to
Geo-Engineering
304 Main Street
Grand Junction, Colorado

Property: Clear View Nos. 1, 2, 3, and 4 unpatented mining claims, sections 5, 6, 7, and 8, T. 42 N., R. 19 W., New Mexico Principal Meridian, in the Lower San Miguel Mining District, San Miguel County, Colorado

Date of Application: December 31, 1954

Amount of Application: $152,816.00

Work Proposed: 34,410 feet of diamond drilling at a total estimated cost of $152,816.00, as follows:

13,710 feet (30 holes) Stage I
20,700 feet (45 holes) Stage II

Field Team Report: Transmitted April 12, 1955

The report recommends a denial of the application for exploration aid. Because of the unfavorable nature of the area and the low production from nearby properties, the examining team concluded that there would be very little likelihood of finding a significant amount of uranium by the proposed exploration.

Geology of Prospect

The following is quoted from the Field Team report:

"The claims are situated on the top and on the northwest side of Mineral Mountain which slopes steeply down to the Dolores River below. Exposed rocks range from the Burro Canyon formation of the lower Cretaceous on the top of the mountain to the bottom of the Chinle formation of the upper triassic near the Dolores River. The exposed rocks on the Clear View claims range from Burro Canyon formation, through the Brushy Basin member of the Morrison formation to the third sandstone rim above the bottom of the Salt Wash member of the Morrison formation. All known ore in the region occurs in the Salt Wash member. In the vicinity of the Clear View claims the Salt Wash is about 430 feet thick and contains from 8 to 10 rims. Mineralization appears to be confined to the third to sixth rims of sandstone lenses. At the Horseshoe Mine, adjacent to the Clear View claims on the east, the mineralization is in the fourth and fifth rims, which in some places, are distinct sandstone lenses and in other places merge into one thick rim. The Salt Wash member is exposed on surface in the northwestern four-fifths of the Clear View No. 1 claim. The rest of the surface of the claim group consists of Brushy Basin member of the Morrison formation and Burro Canyon formation.

"Mine workings consist of two 10-foot adits and a 70-foot adit driven into the fourth sandstone rim. Production amounts to one truck load of rock showing uranium mineralization which was rejected at the mill because it was too low grade. Production from the adjoining Horseshoe workings are 1357 tons running from .12 to .21 percent U_3O_8 and 1.07 to 1.90 percent V_2O_5. The Mucho Grande mine, about one mile northwest produced 693 tons averaging .19 percent U_3O_8 and 2.03 percent V_2O_5. The Uncle Sam mine, east of the Mucho Grande produced 226 tons averaging .24 percent U_3O_8 and 2.08 percent V_3O_8. No other production of note has been made from the Salt Wash sandstones in this area, and the production from these three mines apparently marks an ore trend that passes east of the Clear View property."

Commodity Committee Members' comments:

U. S. Bureau of Mines

John E. Crawford, April 21, 1955 and M. O. Hosted, Washington representative of the Atomic Energy

Commission, concur with the Field Team's recommendation that the application be denied because of the unfavorable nature of the area.

U. S. Geological Survey

R. D. Trace, April 20, 1955, states that the reasons for denial are well summarized in the Field Team reports: (1) ore-bearing sandstone too thin, (2) known deposits too small and spotty, and (3) proposed program has no real objective.

Rare and Miscellaneous Metals Division - Ernest Wm. Ellis, April 27, 1955

In view of the Field Team's report and the comments of the Uranium Commodity Committee members, this Division recommends that the subject application should be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

4/22/55 gla

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

Defense Minerals Administration
RECEIVED
APR 22 1955

April 21, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: Bureau of Mines Member
Uranium Commodity Committee

Subject: Field Team report of examination, DMEA Docket 3635, Western Oil Fields, Inc., Clear View Claims, San Miguel County, Colorado

I have reviewed the Field Team report of examination, DMEA Docket 3635, Western Oil Fields, Inc., Clear View Claims, San Miguel County, Colorado; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

We concur with the Field Team's recommendation that the application for assistance be denied because of the unfavorable nature of the area.

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

April 21, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: Bureau of Mines Member
Uranium Commodity Committee

Subject: Field Team report of examination, DMEA Docket 3635, Western Oil Fields, Inc., Clear View Claims, San Miguel County, Colorado

I have reviewed the Field Team report of examination, DMEA Docket 3635, Western Oil Fields, Inc., Clear View Claims, San Miguel County, Colorado; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

We concur with the Field Team's recommendation that the application for assistance be denied because of the unfavorable nature of the area.

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

John E. Crawford

JECrawford:ds
Copy to: Division of Minerals
Branch of Rare and Precious Metals
J. O. Hosted (2)
J. E. Crawford (2)
F i l e s

4/20/55 gla

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
APR 20 1955

April 20, 1955

Re: DMEA-3635
Western Oil Fields, Inc.
Clear View Claims
Horseshoe Group
San Miguel Co., Colo.

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

The Field Team recommends denial of the subject application. I concur, wholeheartedly! The reasons for denial are well summarized in the Field Team reports: 1) ore-bearing sandstones too thin, 2) known deposits too small and spotty, and 3) proposed program has no real objective. I might add that the area looked a "might hungry" to me in 1951.

Bob Trace
R. D. Trace

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 20 1955

April 20, 1955

Re: DMEA-3635
Western Oil Fields, Inc.
Clear View Claims
Horsesaloe Group
San Miguel Co., Colo.

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

The Field Team recommends denial of the subject application. I concur, wholeheartedly! The reasons for denial are well summarized in the Field Team reports: 1) ore-bearing sandstones too thin, 2) known deposits too small and spotty, and 3) proposed program has no real objective. I might add that the area looked a "might hungry" to me in 1951.

R. D. Trace

RDTrace:hlm
G-4/20/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Hosted, 3210 GSA

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 20 1955

April 20, 1955

Re: DMEA-3635
Western Oil Fields, Inc.
Clear View Claims
Horseshoe Group
San Miguel Co., Colo.

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

The Field Team recommends denial of the subject application. I concur, wholeheartedly! The reasons for denial are well summarized in the Field Team reports: 1) ore-bearing sandstones too thin, 2) known deposits too small and spotty, and 3) proposed program has no real objective. I might add that the area looked a "might hungry" to me in 1951.

R. D. Trace

RDTrace:hlm
G-4/20/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Hosted, 3210 GSA

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 20 1955

April 20, 1955

Re: DMEA-3635
Western Oil Fields, Inc.
Clear View Claims
Barranchas Group
San Miguel Co., Colo.

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

The Field Team recommends denial of the subject application. I concur, wholeheartedly! The reasons for denial are well summarized in the Field Team reports: 1) ore-bearing sandstones too thin, 2) known deposits too small and spotty, and 3) proposed program has no real objective. I might add that the area looked a "night hungry" to me in 1951.

R. D. Trace

RDTrace:hlm
G-4/20/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Rosted, 3210 GSA

4/20/55 gla

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

Minerals Administration
RECEIVED
APR 15 1955

224 New Customhouse
Denver 2, Colorado

April 12, 1955

Memorandum

To: Secretary to the Operating Committee, D.M.E.A.

From: D.M.E.A. Field Team, Region III

Subject: Report of Examination, DMEA Docket 3635 (Uranium)
Western Oil Fields, Inc. Clear View Claims
San Miguel County, Colorado

Enclosed are the original and three copies of the report pertaining to the above application.

Because of the unfavorable nature of the area, we recommend that the application be denied.

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Encs.

Reviewed by
DMEA OPERATING COMMITTEE
4-20-55
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

DMEA
Date Rec'd.
MAR 9 1955
BUREAU OF MINES
Denver, Colorado

TRANSMITTED
APR 12 1955

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado

March 8, 1955

Office of the Minerals Administrator
RECEIVED
APR 12 1955

Memorandum

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

From: John F. Shaw, Project Supervisor

Subject: Engineering Report, Docket No. DMEA 3635 (Uranium), Clear View Group of Claims, Western Oil Fields, Inc., San Miguel County, Colo.

Enclosed is the original and 10 copies of the Summary, Conclusions and Recommendations prepared by D. R. Shawe, geologist, and Carl Belser, Mining Engineer, and the original and 10 copies of an Engineering Report prepared by Carl Belser covering Docket No. DMEA 3635.

Western Oil Fields, Inc. applied for exploration assistance to aid in exploring the Clear View group by 34,410 feet of diamond drilling at a total estimated cost of $152,816.00. Because of the unfavorable nature of the area and the low production from nearby properties, the examining team concluded that there would be very little likelihood of finding a significant amount of uranium by the proposed exploration.

It is recommended that this application be denied.

JOHN F. SHAW
John F. Shaw

Enclosures

cc 10
DMEA 3635
Chron

JFS/mh

Reviewed by
DMEA OPERATING COMMITTEE
4-20-55
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 16 1955

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3635

Clear View group of claims

Western Oil Fields, Inc.

San Miguel County, Colorado

Uranium

D. R. Shawe, Geologist
Geological Survey

Carl Belser, Mining Engineer
Bureau of Mines

February 25, 1955

Reviewed by
DMEA OPERATING COMMITTEE
4-20-55
(date)

DMEA 3635

CLEAR VIEW GROUP OF CLAIMS
WESTERN OIL FIELDS, INC.
SAN MIGUEL COUNTY, COLO.

Minerals Administration
RECEIVED
APR 13 1955

Summary, Conclusions, and Recommendations

By D. R. Shawe
Geologist
Geological Survey

Carl Belser
Mining Engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE

4-20-55
(date)

DMEA 3635

Defense Minerals Administration
APR 1 5 1955

CLEAR VIEW GROUP OF CLAIMS
WESTERN OIL FIELDS, INC.
SAN MIGUEL COUNTY, COLO.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By D. R. Shawe and Carl Belser

Western Oil Fields, Inc., R. M. Barnholt, Sr., President, 1827 Grant Street, Denver, Colo., has applied for Defense Minerals Exploration Administration aid in exploring the Clear View group by 34,410 feet of diamond drilling at a total estimated cost of $152,816.00.

A field investigation was made on February 17, 1955, by an examining team from the Geological Survey and the Bureau of Mines. Lewis D. Anderson, consultant mining engineer, accompanied the team and represented the applicant.

The Clear View group is in sec.'s 5, 6, 7, and 8, T. 42 N., R 17 W., New Mexico principal meridian, Mineral Mountain mining area, San Miguel County, Colo.

The claims are situated on the top and on the northwest side of Mineral Mountain which slopes steeply down to the Dolores River below. Exposed rocks range from the Burro Canyon formation of the lower Cretaceous on the top of the mountain to the bottom of the Chinle formation of the upper triassic near the Dolores River. The exposed rocks on the Clear View claims range from Burro Canyon formation, through the Brushy Basin member of the Morrison formation to the third sandstone rim above the bottom of the Salt Wash member of the Morrison formation.

Reviewed by
DMEA OPERATING COMMITTEE
4-20-55
(date)

All known ore in the region occurs in the Salt Wash member. In the vicinity of the Clear View claims the Salt Wash is about 430 feet thick and contains from 8 to 10 rims. Mineralization appears to be confined to the third to sixth rims or sandstone lenses. At the Horseshoe Mine, adjacent to the Clear View claims on the east, the mineralization is in the fourth and fifth rims, which in some places, are distinct sandstone lenses and in other places merge into one thick rim. The Salt Wash member is exposed on surface in the northwestern four-fifths of the Clear View No. 1 claim. The rest of the surface of the claim group consists of Brushy Basin member of the Morrison formation and Burro Canyon formation.

Mine workings consist of two 10-foot adits and a 70-foot adit driven into the fourth sandstone rim. Production amounts to one truck load of rock showing uranium mineralization which was rejected at the mill because it was too low grade. Production from the adjoining Horseshoe workings are 1357 tons running from .12 to .21 percent U_3O_8 and 1.07 to 1.90 percent V_2O_5. The Mucho Grande mine, about one mile northwest produced 693 tons averaging .19 percent U_3O_8 and 2.03 percent V_2O_5. The Uncle Sam mine, east of the Mucho Grande produced 226 tons averaging .24 percent U_3O_8 and 2.08 percent V_2O_5. No other production of note has been made from the Salt Wash sandstones in this area, and the production from these three mines apparently marks an ore trend that passes east of the Clear View property.

The applicants proposal called for 13,710 feet (30 holes) of Stage I diamond drilling and 20,700 feet (45 holes) of Stage II diamond drilling at a total estimated cost of $152,816.00.

Because of the unfavorable nature of the area and the low production from nearby properties the examining team recommends that the application be denied.

DMEA 3635

CLEAR VIEW GROUP OF CLAIMS
WESTERN OIL FIELDS, INC.
SAN MIGUEL COUNTY, COLO.

Engineering Report

By Carl Belser
Mining Engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
4-20-55
(date)

DMEA 3635

CLEAR VIEW GROUP OF CLAIMS
WESTERN OIL FIELDS, INC.
SAN MIGUEL COUNTY, COLO.

CONTENTS

Engineering Report	Page
Introduction	1
Acknowledgments	1
Location, topography, and climate	2
History and production	3
Ownership and extent	3
Description of deposits	4
Minable ore reserves	5
Present status	5
Exploration and development	5
Mining and milling equipment and other facilities	5
Proposed exploration	5
Estimated cost of project	6
Estimated cost of diamond drilling	7
Summary cost of project	7
Conclusions	8
Recommendations	8

ILLUSTRATIONS

Figure	Follows Page
1. Location map, Clear View group of claims, Western Oil Fields, Inc., San Miguel County, Colo., DMEA 3635	2
2. Claim map, showing proposed Stage I drilling, Clear View group of claims, Western Oil Fields, Inc., San Miguel County, Colo., DMEA 3635	2

Reviewed by
DMEA OPERATING COMMITTEE
4-20-55
(date)

DMEA 3635

CLEAR VIEW GROUP OF CLAIMS
WESTERN OIL FIELDS, INC.
SAN MIGUEL COUNTY, COLO.

ENGINEERING REPORT

By Carl Belser

INTRODUCTION

Western Oil Fields, Inc., 1827 Grant Street, Denver, Colo., on December 31, 1954, submitted an application for Defense Minerals Exploration Administration assistance on the Clear View group of claims in San Miguel County, Colorado. The DMEA application requested aid in completing 34,410 feet (75 holes) of diamond drilling at an estimated total cost of $152,816.00 - Government participation 75 percent, or $114,612.00. The proposed exploration was to test the upper 230 feet of the Salt Wash member of the Morrison formation for uranium mineralization.

A joint field examination was made by a Geological Survey and Bureau of Mines examining team on February 17, 1955. The examining team as a result of their investigations, recommended that the application be denied.

ACKNOWLEDGMENTS

Lewis D. Anderson, consulting mining engineer, accompanied the examining team and represented the applicant.

W. P. Williams, geologist, Colorado Plateau District, Geology Survey, Grand Junction, Colo., assigned D. R. Shawe, geologist, to make the examination as the Geological Survey member of the team. Shawe was accompanied by O. T. Marsh and W. P. Williams, geologists, Geological Survey.

The Atomic Energy Commission was consulted regarding the area before the examination was made.

LOCATION, TOPOGRAPHY, AND CLIMATE

The Clear View group consists of 4 unpatented claims in a solid block about 3,000 feet long and 1,250 feet wide in sec.'s 5, 6, 7, and 8, T. 42 N., R 17 W., New Mexico principal meridian, San Miguel County, Colo., (figs. 1 and 2).

The claims are high up on the east rim of the Dolores River, about three-fifths of the area being along the steep slope below the rim. Altitudes range from 6,600 feet to 7,500 feet.

A fair 5 mile access road connects the Clear View No. 1 claim with a dirt road in Disappointment Valley from whence State Highway 80 is 5 miles distant, Naturita is 41 miles north, the Vanadium Corporation mill is 56.1 miles north, and Uravan is 66.7 miles north. Norwood is 50.1 miles east and Ridgeway is 91.5 miles east. Grand Junction is 157 miles northeast.

Labor, supplies, and light equipment can be obtained at Naturita, Norwood, and Uravan. Heavy equipment can be obtained in Grand Junction. The nearest railroad is the Denver and Rio Grande Western at Ridgeway. Ore depots are located near Naturita and in Uravan.

Pinion, suitable for some mine uses, grows on the property. Large native timbers and dimension lumber can be purchased in the local towns.

Annual rainfall is light and the country is classed as semi-arid. Winter snowfalls seldom exceed 6 inches and mining operations can be maintained the year around. Water for drilling purposes can be obtained from local reservoirs about 3 miles distant or from Disappointment Valley. Water for domestic use can be trucked from Naturita or Slick Rock.

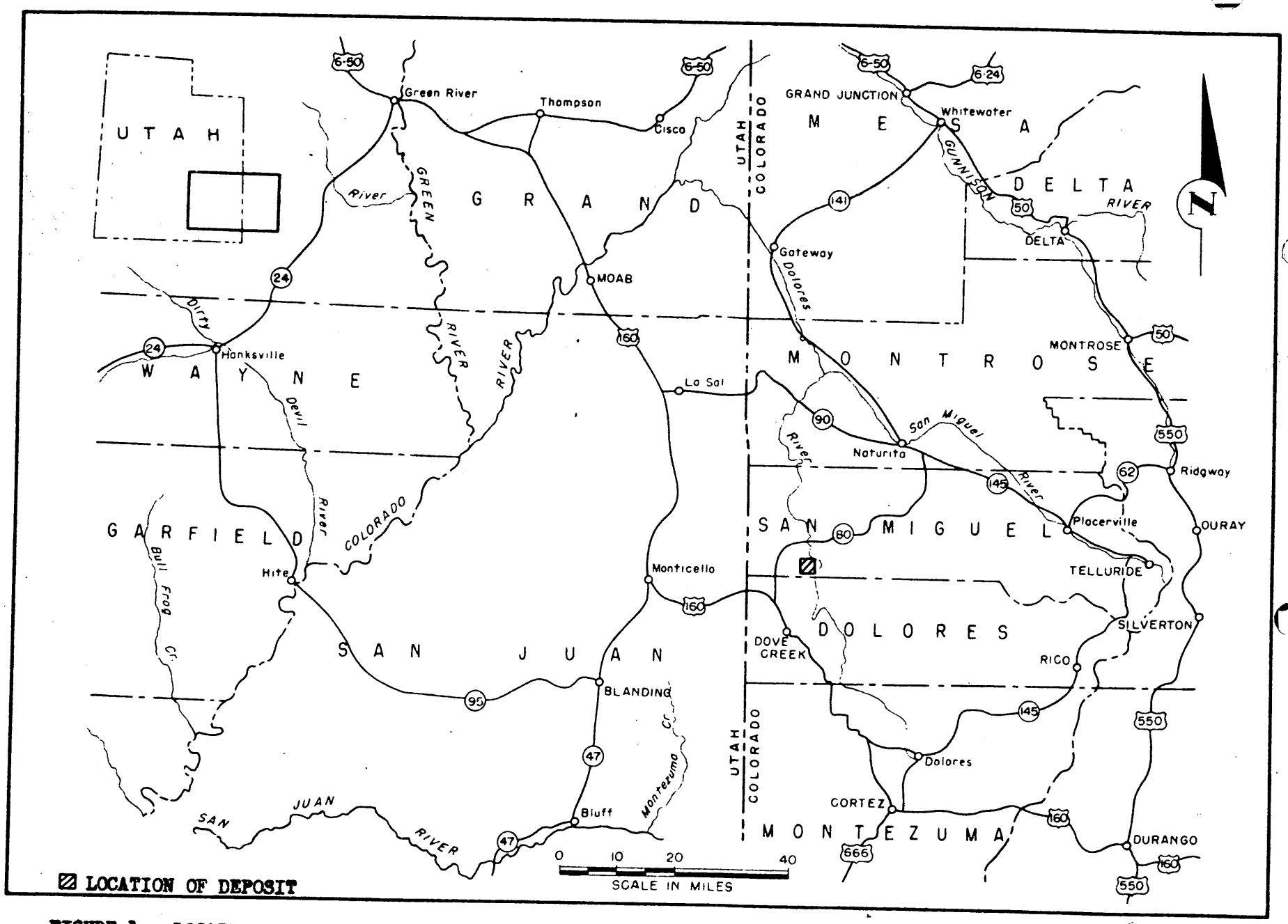


FIGURE 1 - LOCATION MAP, CLEAR VIEW GROUP OF CLAIMS, WESTERN OIL FIELDS, INC., SAN MIGUEL COUNTY, COLO.
DMRA 3635

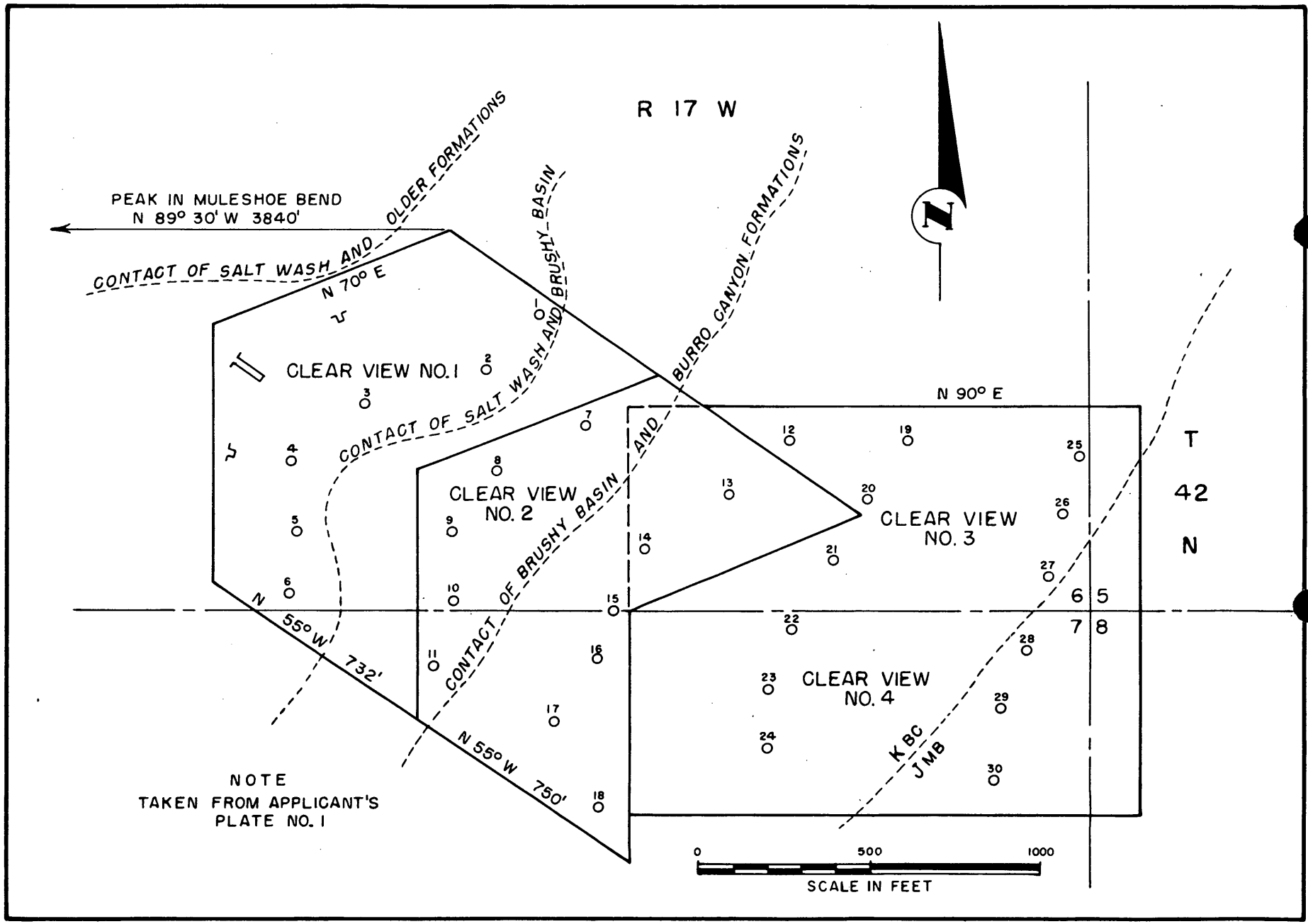


FIGURE 2 - CLAIM MAP, SHOWING PROPOSED STAGE I DRILLING, CLEAR VIEW GROUP OF CLAIMS, WESTERN OIL FIELDS, INC., SAN MIGUEL COUNTY, COLO. (DMEA 3635)

HISTORY AND PRODUCTION

The Clear View claims were located by W. E. Lyen in 1943 for vanadium but it was not until the Government buying schedules were introduced in 1948 that the area became of interest. Three adits, aggregating 90 feet in length, were driven into the fourth and fifth rims on the Clear View No. 1 claim and one truck load of uranium ore was shipped but the ore was rejected at the mill because it was too low in grade. Adjoining the Clear View group on the east are the Horseshoe mines Nos. 1, 3, 5, and 7. About 5,000 feet northwest and across a steep canyon is the Mucho Grande mine and 2500 feet east of the Mucho Grande is the Uncle Sam mine. The production from these properties follow:

Mine	Dry Tons	% U_3O_8	% V_2O_5
Horseshoe No. 1	294.86	.20	1.50
Horseshoe No. 3	28.30	.12	1.24
Horseshoe No. 5	885.61	.21	1.90
Horseshoe No. 7	148.35	.16	1.09
Uncle Sam	226.28	.24	2.08
Mucho Grande	692.51	.19	2.03

Two men are employed on the Horseshoe properties at this time.

OWNERSHIP AND EXTENT

The property consists of 4 unpatented claims containing approximately 77.3 acres in sec.'s 5, 6, 7, and 8, T. 42 N., R 17 W., New Mexico principal meridian, San Miguel County, Colo. The claims are recorded in the office of the County Clerk and Recorder of San Miguel County, Colo. as follows:

Claim	Original Book	Original Page	Original Date Discovered	Original Date Recorded	Amended Book	Amended Page	Amended Date Amended	Amended Date Recorded
Clear View No. 1	174	272	6/1/43	6/21/43	231	397	3/5/54	3/12/54
Clear View No. 2	174	273	6/20/43	6/21/43	231	398	3/5/54	3/12/54
Clear View No. 3	174	273	6/19/43	6/21/43	231	399	3/5/54	3/12/54
Clear View No. 4	174	274	6/21/43	6/21/43	231	400	3/5/54	3/12/54

The claims were originally located by W. E. Lyen and amended by Joe Delaney, Johnson and Peiffer, and Hugo W. Johnson. Affidavits of labor were filed as follows:

Date	Signer
September 25, 1945	Warren Lyen
November 2, 1946	Warren Lyen
April 25, 1947	W. E. Lyen
July 1, 1948	W. E. Lyen
1949	None
June 28, 1950	W. E. Lyen
June 30, 1951	C. J. Moyniham
July 3, 1952	C. J. Moyniham
June 30, 1953	E. V. Cockram
June 17, 1954	Joe Delaney

A sheriffs certificate (purchase under lease) to Charles J. Moyniham dated April 30, 1951 is recorded in Book 216, Page 52.

A mining deed from Charles J. Moyniham to Joe Delaney, et al, made on January 22, 1954, is recorded in Book 216, Page 555.

A five year lease with renewal provisions was granted by Joe Delaney, and Johnson and Peiffer (a partnership) to Western Oil Fields, Inc., on June 15, 1954.

DESCRIPTION OF DEPOSITS

All known ore deposits in the Morrison formation in the area occur in the upper 230 feet of the Salt Wash formation. In the immediate vicinity of the Clear View claims the ore occurs in the fourth and fifth sandstone lenses or rims.

A small lense of ore was opened by a 70-foot adit on the Clear View No. 1 claim. This lense appears to have been about 20 feet long by 10 feet wide. An 18-inch sample taken by Lewis D. Anderson from the lense is reported to have assayed 0.13 percent U_3O_8 and 3.00 percent V_2O_5. However, the truck load of ore that was rejected at the mill, was taken from this lense. The ore, where mined in the Horseshoe mine to the east, appeared to be about 24-inches thick. The sandstone lense ranges from 10 to 30 feet thick and is light in color. The mudstone is green but becomes brownish-red towards the southwest corner of the Clear View No. 1 claim.

MINABLE ORE RESERVES

There are no known minable ore reserves on the property.

PRESENT STATUS

Exploration and Development

Development consists of a 70-foot and two 10-foot adits.

Mining and Milling Equipment and Other Facilities

There is no mining or milling equipment on the property and the only facility consists of an access road which traverses the lower part of the Clear View No. 1 claim.

PROPOSED EXPLORATION

The applicant proposes to explore the claims by 75 diamond drill holes to be drilled in two stages. Stage I consisted of 13,710 feet (30 holes) of drilling to be drilled through the upper 230 feet of the Salt Wash member of the Morrison formation. Stage II consisted of 20,700 feet (45 holes) of drilling to delineate possible ore found in Stage I drilling.

ESTIMATED COST OF PROJECT

The application, as submitted, included all estimated costs.

Estimated Cost of Drilling

The applicant expects to subcontract all bulldozing, blasting, and drilling to independent contractors. Non-core drilling has been estimated at $2.00 a foot, and core drilling at $2.25 to $4.25 a foot, depending on depth. The applicants estimated costs, which have not been broken down into stages, follows:

Independent Contracts

Stage I non-core drilling 8,370 feet at $2.00/ft.	$16,780.00
Stage I core drilling (0-200 ft.) 870 feet at $2.25/ft	1,957.50
Stage I core drilling (200-300 ft.) 450 feet at $2.50/ft	1,125.00
Stage I core drilling (300-400 ft.) 650 feet at $2.75/ft	1,787.50
Stage I core drilling (400-500 ft.) 1,310 feet at $3.25/ft	4,257.50
Stage I core drilling (500-600 ft.) 1,450 feet at $3.75/ft	5,437.50
Stage I core drilling (600-700 ft.) 590 feet at $4.25/ft	2,507.50
Stage II non-core drilling 12,627 feet at $2.00/ft	25,254.00
Stage II core drilling (0-200 ft.) 1,242 feet at $2.25/ft	2,794.50
Stage II core drilling (200-300 ft.) 621 feet at $2.50/ft	1,552.50
Stage II core drilling (300-400 ft.) 1,035 feet at $2.75/ft	2,846.25
Stage II core drilling (400-500 ft.) 2,070 feet at $3.25/ft	6,727.50
Stage II core drilling (500-600 ft.) 2,277 feet at $3.75/ft	8,538.75
Stage II core drilling (600-700 ft.) 828 feet at $4.25/ft	3,519.00
Reaming for casing 8400 feet at $1.50/ft	12,600.00
Bulldozing roads and drill sites 66 days at $100.00/day	6,600.00
Blasting (compressor, labor, explosives) 50 days at $50.00/day	2,500.00
Total independent contractors	$106,785.00

Labor and Supervision

Labor

Draftsman 50 hrs./mo.	600 hrs. at $3.00/hr.	1,800.00
Typist 25 hrs./mo	300 hrs. at $2.25/hr.	675.00
Sampler and field assistant	300 days at $15.00/day	4,500.00

Supervision

Geo-Engineering 12 montsh at $900.00/mo.	10,800.00
Total labor and supervision	$17,775.00

Operating materials and supplies

Office supplies, map and drill log reproductions and other correspondence with DMEA at $150.00 a month for 12 months	$ 1,800.00
Survey stakes and other field supplies	100.00
Total operating materials and supplies	$ 1,900.00

Operating equipment

None

Initial rehabilitation and repairs

None

New buildings, installations, etc.

3 Trailer houses for project personnel at $150.00 per month rental - 12 months	1,800.00
Total new buildings, installations, etc.	$ 1,800.00

Miscellaneous

Accounting expenses 12 months at $100.00/mo.	1,200.00
Payroll taxes 10 percent of $581.25 for 12 months	700.00
Total miscellaneous	$ 1,900.00

Contingencies

Independent contractors - 15 percent, or	16,017.75
Labor and supervision - 15 percent, or	2,666.25
Operating materials and supplies - 20 percent, or	380.00
New buildings, installations, etc. - 20 percent, or	360.00
Miscellaneous - 50 percent, or	950.00
Total contingencies	$20,374.00

Total estimated cost of diamond drilling	$150,534.00
Average cost per foot for 34,410 feet of drilling	$4.38

SUMMARY COST OF PROJECT

Diamond drilling 34,410 feet at $4.38 a foot	$150,716.00
350 assays at $6.00 each	2,100.00
Total estimated cost of project	$152,816.00
Government participation - 75 percent, or	$114,612.00

Labor, supervision, and contingency estimates are high and would be

cut about $12,000.00 by an engineer's estimate of costs.

CONCLUSIONS

The claims appear to be just west of the main ore trend and the A.E.C. production records for the nearby mines in the area is only 6.8 percent of the amount stated in the application.

RECOMMENDATIONS

In view of the unfavorable nature of the area as determined by the field examination, it is recommended that the application be denied.

IN REPLY REFER TO:
DMEA
Date Rec'd.
APR 11 1955
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

April 8, 1955

TRANSMITTED
APR 12 1955

Memorandum

To: Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3635 (Uranium), Western Oil Fields, Inc., Clear View claims, San Miguel County, Colorado

Enclosed are 10 copies of a geologic report by D. R. Shawe, U. S. Geological Survey, covering his examination of the above subject property.

Shawe concludes that the sandstone leases on the Clear View claims are not thick enough to be favorable for uranium ore deposits, that the known ore deposits north of the claims are small and scattered, and that the program is not designed to test known mineralized or favorable trends. He, therefore, recommends denial of the application for exploration assistance.

I concur with this recommendation.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (10)

ENHarshman:arh

Reviewed by
DMEA OPERATING COMMITTEE
4-20-55
(date)

MINERAL DEPOSITS
DMEA
RECEIVED
APR 6 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
COLORADO PLATEAU DISTRICT
P. O. BOX 360
GRAND JUNCTION, COLORADO

March 28, 1955

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

From: W. P. Williams

Subject: DMEA 3635, Western Oil Fields, Inc., Clear View claims, San Miguel County, Colorado

Transmitted herewith are 11 copies of a geologic report and accompanying maps by D. R. Shawe covering the subject application, and the brochure.

Shawe recommends that DMEA assistance be denied as: 1) the sandstone lenses in the ore-bearing zone are too thin to be favorable for large ore bodies, 2) the known ore deposits in the area are small and scattered, and 3) the applicant proposes a drilling program which would not test for a known mineralized or favorable trend.

I concur with Shawe's recommendation that DMEA assistance be denied.

The Exploration Division of the Atomic Energy Commission, Grand Junction Operations Office, was asked for its aid and advice in evaluating the property.

T. E. Williams
For W. P. Williams
Geologist

Reviewed by
DMEA OPERATING COMMITTEE
4-20-55
(date)

TEM/mlr

Enclosures

Defense Minerals Administration
APR 15 1955

UNITED STATES DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3635, Western Oil Fields, Inc., Clear View claims
San Miguel County, Colorado

Uranium

Geologic Report

by

Daniel R. Shawe
U. S. Geological Survey

March 25, 1955

Reviewed by
DMEA OPERATING COMMITTEE
4-20-55
(date)

INTRODUCTION AND SUMMARY

Western Oil Fields, Inc., 1927 Grant Street, Denver, Colorado, has submitted an application, prepared by Geo-Engineering, 304 Main St., Grand Junction, Colorado, to the Defense Minerals Exploration Administration. The application, Docket No. 3735, requests DMEA assistance in exploring for uranium ore on the Clear View group of claims, Horseshoe area, secs. 5, 6, 7, and 8, T. 42 N., R. 17 W., Slick Rock mining district, San Miguel County, Colorado (fig. 1).

The claims were examined on February 17, 1955, in company with Carl Belser, U. S. Bureau of Mines representative, W. P. Williams and O. T. Marsh of the U. S. Geological Survey, and Lewis D. Anderson, engineer for Geo-Engineering and representative for the applicant.

After field examination of the Clear View group of claims, it is recommended that DMEA assistance to explore the claims be denied for these reasons: 1) the sandstone lenses in the ore-bearing zone are too thin to be favorable for large ore bodies, 2) the known ore deposits in the general area of the claims are small and scattered, and 3) the applicant proposes a wildcat drilling program which is not testing for a known mineralized or favorable trend.

GEOLOGY AND ORE DEPOSITS

The Clear View group is on the northeast flank of the Dolores anticline, about 2 miles from the axis of the anticline. The claims are underlain by the Lower Cretaceous Burro Canyon formation and Upper Jurassic Brushy Basin and Salt Wash members of the Morrison formation (fig.2).

The top of the Burro Canyon formation on the Clear View claims has been removed by erosion and the remaining thickness of the formation is probably no more than 150 feet; the formation consists of thick conglomeratic sandstones and interbedded mudstones. The Brushy Basin member of the Morrison formation, which is exposed on the steep slope near the west edge of the group and on a gentler slope at the east edge of the group, comprises about 300 to 350 feet of reddish and greenish mudstones with minor siltstones, sandstones, and conglomerates concentrated near the base of the member. Underlying the Brushy Basin member and exposed only on the steep slope at the west edge of the Clear View group is the 350- to 400-foot thick Salt Wash member of the Morrison formation which consists of reddish and greenish gray sandstones and mudstones. The middle Salt Wash sandstone lenses form the only known mineralized zone in this part of the Slick Rock district.

A 70-foot adit driven on the Clear View No. 1 claim exposes thin mineralized rock, but no production has come from this working (fig. 2). At the adit the ore-bearing sandstone is about 12 feet thick and rests on one-half to 1 foot of greenish gray mudstone above reddish brown mudstone. Above the sandstone 8 feet of reddish brown and greenish gray mudstone underlies a higher sandstone about 12 feet thick. About 800 feet northeast of the Clear View No. 1 adit on the Horseshoe No. 7 claim the lower sandstone exposed at the Clear View is about 20 feet thick and lies on 3 to 4 feet of greenish gray mudstone. Greenish gray mudstone with sparse reddish brown mudstone 2 to 5 feet thick lies

above this sandstone and below a sandstone 30 feet thick which contains the Horseshoe No. 7 ore body (fig. 2). The sandstones at the Horseshoe No. 7 mine merge and pinch out to the north; a sandstone lens of about 35 feet maximum thickness at the same stratigraphic horizon 2,000 feet north of the Clear View No. 1 claim and on the far wall of the canyon re-entrant (fig. 3) contains workings of the Horseshoe Nos. 1, 3, and 5 claims.

The Mucho Grande and Uncle Sam Mines 1 mile northwest and north of the Clear View group are in a sandstone layer stratigraphically near the middle of the Salt Wash member; this layer is probably at the same horizon as the Horseshoe claims.

Study of the ore-bearing zone indicates the favorableness of the ore-bearing sandstone decreases progressively to the south from the vicinity of the Horseshoe claims, and the sandstone is unfavorable for ore at the Clear View group.

Production from the Horseshoe area has been small, and ore deposits are small and scattered. From 1948 through December, 1954, production from the area has been as follows:

Claim	Tons	$\%U_3O_8$	$\%V_2O_5$
Horseshoe No. 1	294.86	.20	1.50
No. 3	28.30	.12	1.24
No. 5	885.61	.21	1.90
No. 7	148.35	.16	1.09
Uncle Sam	226.28	.24	2.08
Mucho Grande	692.51	.19	2.03

PROPOSED EXPLORATION

A $152,816.00 drilling project is proposed. A total of about 75 holes would be drilled. The first 30 holes would be in fences about 500 feet apart, with holes at intervals of about 200 feet on the fences. The remaining holes would be used to offset the holes deemed most favorable by the applicant.

CONCLUSIONS AND RECOMMENDATIONS

It is recommended that this application be denied for the following reasons: 1) all Salt Wash sandstone units exposed on the property have unfavorable thicknesses; 2) known ore deposits in the area are small and scattered; 3) the applicant proposes a wildcat drilling program which is not testing for a known mineralized or favorable trend.

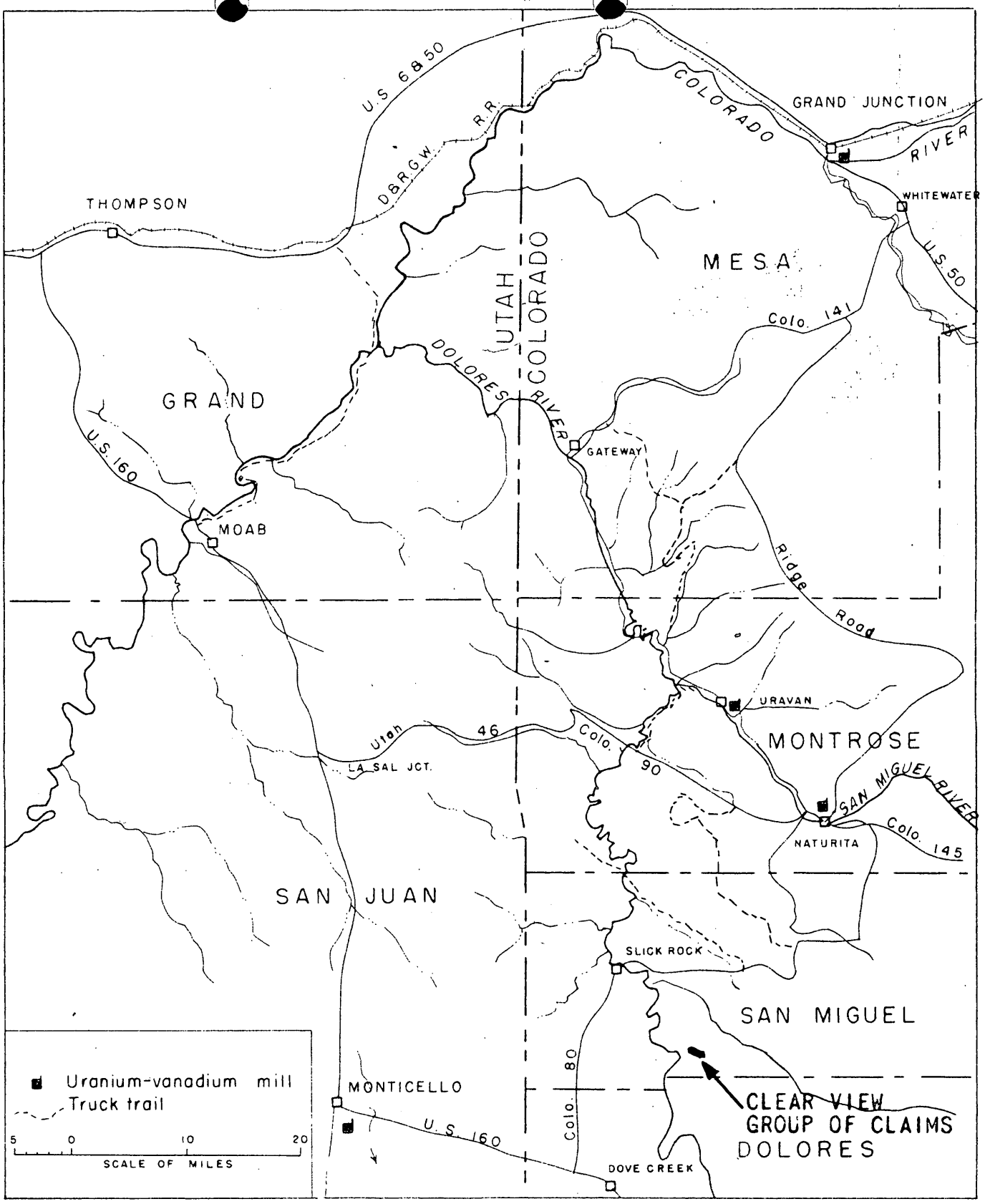
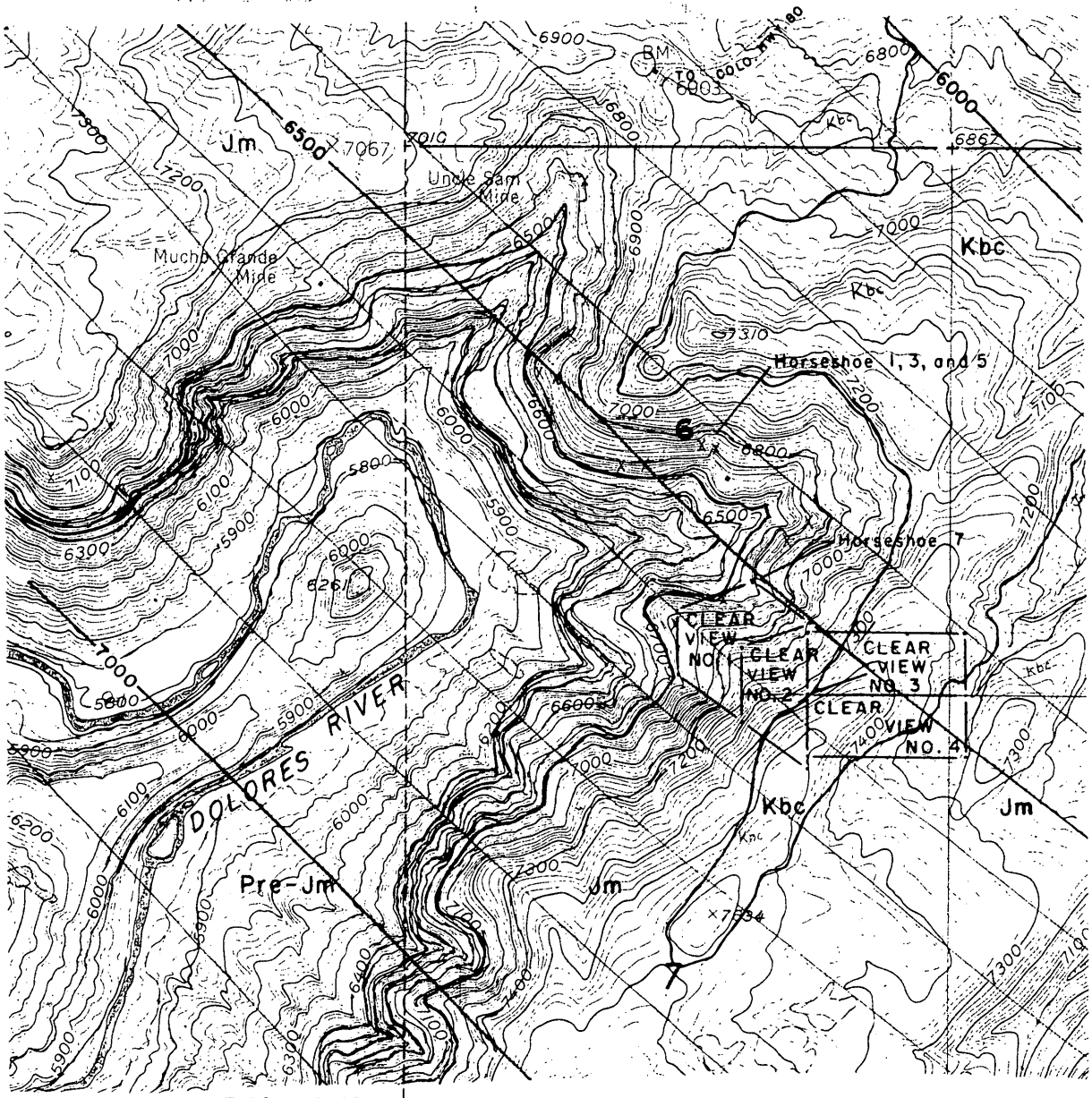


Figure 1. INDEX MAP OF PART OF COLORADO PLATEAU SHOWING LOCATION OF THE CLEAR VEIW GROUP OF CLAIMS, WESTERN OIL FIELD, INC., SAN MIGUEL COUNTY, COLORADO



EXPLANATION

CRETACEOUS	Kbc	BURRO CANYON FORMATION
JURASSIC	Jm	MORRISON FORMATION, UNDIVIDED
	Pre-Jm	PRE-MORRISON FORMATIONS, UNDIFFERENTIATED
		FORMATION CONTACT
	7000	STRUCTURE CONTOUR ON BASE OF ENTRADA
	X	MINES OR PROSPECTS

1000 0 3000 FEET

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

N

NOTE: TOPOGRAPHY AND LAND LINES FROM U.S. GEOLOGIC SURVEY QUADRANGLE MAP JOE DAVIS HILL. CLAIM BOUNDARIES FROM APPLICANTS MAP

Figure 2. MAP SHOWING LOCATION OF THE CLEAR VIEW GROUP OF CLAIMS, WESTERN OIL FIELD, INC., SAN MIGUEL COUNTY, COLORADO

2/8/55 glc

824 New Customhouse
Denver 2, Colorado

February 2, 1955

Memorandum

To: John F. Shaw
W. P. Williams

From: DMEA Field Team, Region III

Subject: DMEA Docket 3635 (Uranium), Western Oil Fields, Inc., Clear View Claim Group, San Miguel County, Colorado

We herewith transmit a complete copy of the application which has been docketed DMEA 3635 to John Shaw. Copies of letter from Chairman, DMEA Operating Committee with enclosed memoranda from E. L. Newcomb and John E. Crawford, members of the Uranium Commodity Committee, are transmitted to John Shaw and W. P. Williams. A copy of the brochure will be forwarded to W. P. Williams by E. N. Harshman of the U. S. Geological Survey. Property included in the application consists of the Clear View claims Nos. 1 - 4 inclusive; located in T-42-N, R-19-W, Lower San Miguel County, Colorado.

A formal field examination of the property is required and the customary report of examination is to be prepared for the use of the Washington office in the evaluation of this application. Contact the Atomic Energy Commission in regard to this application and so state in your report.

W. M. TRAVER

W. M. Traver

RDB:pw

Enclosures

cc: Subject
Chron
Sec.Op.Comm.
E. N. Harshman
A. J. Martin

700

Surname copy

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

FLKnouse
Ellis
Hedges
Selfridge
JEJenson

JAN 28 1955

Geo-Engineering
304 Main Street
Grand Junction, Colorado

Re: Docket No. DMEA-3635 (Uranium)
Western Oil Fields, Inc.
Clear View Claim Group
San Miguel County, Colorado

Gentlemen:

The application filed by you on behalf of the Western Oil Field, Inc., under the above captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to the Executive Officer of Region III at the following address:

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

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

Sincerely yours,

E. O. Eckstendorf (fy

Administrator

cc to: Western Oil Fields, Inc.
1827 Grant Street
Denver, Colorado

FLKnouse/gla
1-25-55
cc to: Admr.'s Reading File
Docket
Code 700
Mr. Knouse
DMEA Field Team, Region III (2)

R.C.S.

700

Surname copy

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

F L Knouse
Ellis
Selfridge
R J Johnson

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

JAN 2 8 1955

Re: Docket No. DMEA-3635 (Uranium)
Western Oil Fields, Inc.
Clear View Claim Group
San Miguel County, Colorado

Dear Mr. Traver:

The captioned application is referred to your office for either a field examination and report on the proposed project or for review and recommendations.

Your report should consider and cover the points enumerated in the enclosed copies of memoranda from Mr. E. L. Newcomb and Mr. John E. Crawford, both dated January 20, 1955, members of the Uranium Commodity Committee. In addition, the proposed project and your recommendations should be discussed with the Exploration Division of the A.E.C. at Grand Junction, Colorado.

If your office recommends either the program as submitted or an alternate one approved by the Applicant, please furnish the necessary information to draft a contract. In this connection, the Applicant should be instructed to furnish the required number of executed Owner's Consent to Lien (Form MF-203, revised July 1, 1954), as the one submitted with the application is out of date.

Mr. King's memorandum dated January 10, 1955, stated one copy of the application was retained in your office.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

FLKnouse/gla 1-26-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Knouse

Enclosures 4

APPROVED:

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

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

R.C.b.

1/21/55 gla

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 21 1955

January 20, 1955

Re: DMEA-3635
Western Oil Fields, Inc.
(Clear View Claims)
San Miguel Co., Colo.
$152,816 - Uranium

Memorandum

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

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

Subject: Review of application

The applicant has proposed a two-stage drilling project to explore a favorable ore horizon in the upper 200 feet of the Salt Wash member. Stage I would consist of 30 holes and Stage II an additional 45 holes. Although the Stage I holes are located on Plate I, the applicant considers these locations to be tentative and subject to change as drilling progresses.

No previous drilling has been done on the property; however, a 65 foot drift on the Clear View No. 1 claim produced a small amount of low grade uranium ore. An 18 inch sample taken by Geo-Engineering is reported to have assayed 0.13% U_3O_8 and 3% V_2O_5.

The application refers to the production from the Horseshoe claims, but these are not identified on any of the application maps. The Mucho Grande and Uncle Sam mines are referred to as nearby mines which are producing from the upper Salt Wash. As these mines are 4-5,000 feet from the Clear View claims they may not have too much significance in our consideration of the applicant's property.

Inasmuch as the Clear View claims have evidence of uranium mineralization, I recommend this application be referred to the Field Team for their review and recommendations.

E. L. Newcomb

E. L. Newcomb

IN REPLY REFER TO:

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

extra

January 20, 1955

Re: DMEA-3635
Western Oil Fields, Inc.
(Clear View Claims)
San Miguel Co., Colo.
$152,816 - Uranium

Memorandum

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

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

Subject: Review of application

The applicant has proposed a two-stage drilling project to explore a favorable ore horizon in the upper 200 feet of the Salt Wash member. Stage I would consist of 30 holes and Stage II an additional 45 holes. Although the Stage I holes are located on Plate I, the applicant considers these locations to be tentative and subject to change as drilling progresses.

No previous drilling has been done on the property; however, a 65 foot drift on the Clear View No. 1 claim produced a small amount of low grade uranium ore. An 18 inch sample taken by Geo-Engineering is reported to have assayed 0.13% U_3O_8 and 3% V_2O_5.

The application refers to the production from the Marcshae claims, but these are not identified on any of the application maps. The Macho Grande and Uncle Sam mines are referred to as nearby mines which are producing from the upper Salt Wash. As these mines are 4-5,000 feet from the Clear View claims they may not have too much significance in our consideration of the applicant's property.

Inasmuch as the Clear View claims have evidence of uranium mineralization, I recommend this application be referred to the Field Team for their review and recommendations.

E. L. Newcomb

ELNewcomb:hlm
G-1/20/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641

1/21/55 gla

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 21 1955

January 20, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

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

Subject: DMEA application, Docket 3635, Western Oil Fields, Inc., 1827 Grant Street, Denver, Colorado

I have reviewed the subject application and have discussed it with Joseph O. Hosted, representative of the Atomic Energy Commission.

In order to better evaluate the proposed exploration program we recommend that the information mentioned in paragraph 6 on page 5 of the supplementary data attached to the application be requested from the applicant. Paragraph 6 states:

> "Geologic data, gathered from U.S.G.S. and other maps and pamphlets and from surface and underground studies, furnish evidence that an exploration project on the Clear View Group can be justified."

Your attention is called to the following statement in paragraph 5 on page 1 of the supplementary data attached to the application:

> "Acknowledgment of the help received during preparation of the DMEA application is hereby made to Messrs. W. M. Williams and Shawe of the United States Geological Survey,....."

John E. Crawford
John E. Crawford

Attachment

Copy to: Branch of Rare and Precious Metals
Division of Minerals
J. O. Hosted (2)
J. E. Crawford
F i l e s

January 13, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

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 IV.

DMEA - 3635 Western Oil Fields, Inc.

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

Geo-Engineering
304 Main Street
Grand Junction, Colorado

January 13, 1955
Subject: DMEA 3635
Re: Clear View Group
Exploration Assistance

Gentlemen:

The receipt of your application dated December 31, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3635 and referred to the Rare and Miscellaneous 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

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

DEPARTMENT OF THE INTERIOR
JAN 12 1955

224 New Customhouse
Denver 2, Colorado

January 10, 1955

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, DMEA Field Team, Region IV

Subject: (Uranium), Application of the Western Oil Fields, Inc., Clear View Group, San Miguel County, Colorado

Enclosed are three copies of the subject application in the amount of $152,816.00. One copy of the application is being retained in this office.

W. H. King

Enclosures

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

DEPARTMENT OF THE INTERIOR
Enclosure
JAN 12 1955

224 New Customhouse
Denver 2, Colorado

January 10, 1955

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, DMEA Field Team, Region IV

Subject: (Uranium), Application of the Western Oil Fields, Inc., Clear View Group, San Miguel County, Colorado

Enclosed are three copies of the subject application in the amount of $152,816.00. One copy of the application is being retained in this office.

W. H. King

Enclosures

HMC:ld

Copy to: Harshman

sub
chron

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA 3635
Metal or Mineral Uranium
Date Received 1-12-55
Estimated Cost $152,816.
Participation (Government %)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JAN 12 1955

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: Western Oil Fields, Inc., 1827 Grant Street, Denver, Colorado. (Please address all correspondence regarding application to Geo-Engineering, 304 Main Street, Grand Junction, 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 Clear View No.1, No.2, No.3, and No.4, unpatented mining claims, Lower San Miguel Mining District, San Miguel County, Colo.

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise See Exhibits 2 through 7 of this report.

(*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.

(*e*) If you own the land, describe any liens or encumbrances on it See Exhibits 2 through 7 of this report.

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

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.

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

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

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

5. *The exploration project.*—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 12 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated December 31, 1954

Western Oil Fields, Inc.
(Applicant)

By R. M. Barnhold Sr.
Pres.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 12 1955

APPLICATION FOR DMEA PROJECT

ON THE

CLEAR VIEW GROUP

December 29, 1954

Prepared for

WESTERN OIL FIELDS, INC.

1827 GRANT STREET

DENVER, COLORADO

by
GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT OF THE CLEAR VIEW GROUP, PREPARED FOR WESTERN OIL FIELDS, INC., 1827 GRANT STREET, DENVER

INDEX

	Page
INTRODUCTION	1
ABSTRACT	1
ACKNOWLEDGMENTS	1
NAME OF APPLICANT	2
Officers	2
GENERAL	2
APPLICANT'S PROPERTY RIGHTS	3
Legal Description and Name of Property	3
Interest	3
Outstanding Liens	3
Record of Title	3
PHYSICAL DESCRIPTION OF PROPERTY	4
Operations	4
Production and Ore Reserves	4
Geological Features	4
Stratigraphy	4
Structure	4
Ore Deposits	5
Justification of Exploration	5
Accessibility	5
Availability of Manpower, Equipment, Supplies, etc.	6
THE EXPLORATION PROJECT	6
Mineral	6
Proposed Work	6
Proposed holes	6
Logging and Sampling	6
Geologic Control of Drilling	7
Drilling Plan	7
Time of Exploration Project Contract	8
Ability of Applicant	8
ESTIMATE OF COSTS	9
Independent Contracts	9
Drilling	9
Bulldozing and Tractor	9
Labor, Supervision and Consultants	10
Operating Material and Supplies	10
Operating Equipment	10
Rehabilitation and Repairs	10
New Building, Improvements and Installations	10
Miscellaneous	10
Contingencies	10
Independent contractors	10
Labor, Supervision and Control	11
Operating Materials and supplies	11
New Building, Improvements, etc.	11
Miscellaneous Costs	11
APPLICANT'S SHARE OF COST	11

FOR LIST OF SCHEDULES, EXHIBITS, FIGURES, AND PLATES, SEE NEXT PAGE

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT OF THE CLEAR VIEW GROUP, PREPARED FOR WESTERN OIL FIELDS, INC., 1827 GRANT STREET, DENVER

LIST OF SCHEDULES

Title	Schedule No.
Core Drill Hole Depths	1
Core Drilling Summary	2
Estimate to be Paid Independent Contractors	3
Estimated Costs Under 6(a), 6 (b), 6 (c), 6(f), 6(g)	4
Summary of Costs	5

LIST OF FIGURES

Title	Figure No.
Map of Uravan Mineral Belt Showing Location of Clear View Group	1
Map Showing Dominant Orientation of Fossil Logs and Ore Rolls	2
Topographical Map of Clear View Group	3
Profile of Section of Figure 3	4

LIST OF PLATES

Title	Plate No.
Claim Map of Clear View Group Showing Location of Stage I Drill Holes	1
Clear View Claim Map by F.W. Paddock, Professional Engineer	2

LIST OF EXHIBITS

Title	Exhibit No.
Completed DMEA Form MF-103	1
Mining Deed to Hugo W. Johnson & Co.	2
Mining Lease to Western Oil Fields, Inc.	3
Amendment of Mining Lease to Western Oil Fields, Inc.	4
Letter to Western Oil Fields, Inc.	5
Owner's Consent to Lien	6
Purchase and Sale Agreement to Western Oil Field, Inc.	7

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE CLEAR VIEW GROUP

Prepared for
WESTERN OIL FIELDS, INC.
1827 Grant Street
Denver, Colorado

INTRODUCTION

This report, written by Geo-Engineering for the purpose of applying for DMEA loan on the Clear View Group of claims, is prepared for WESTERN OIL FIELDS, INC. DMEA Form MF-103 has been signed and is attached as Exhibit 1. Numbers and letters in front of the headings of this report refer to parts of the MF-103.

ABSTRACT

This report, with Form MF-103 (numbers and letters in front of headings used in this report refer to parts of Form MF-103) attached as Exhibit 1, is an application for a Defense Mineral Exploration Administration project contract of the short form or unit cost type. A $152,816.00 project is recommended for exploring uranium lands in western San Miguel County, Colorado. (See Schedule 5). A total of 34,410 feet of core drilling is proposed on the Clear View Group of uranium claims in the Mineral Mountain area of Colorado (see Figure 1). Unit cost of $4.38 per foot for core drilling is estimated for the work. Not included in this unit cost is an estimated $2,100.00 for custom assaying that is, however, included in the total proposed expenditure. Twenty-five percent of the toal expenditure or $38,204.00 will be paid by WESTERN OIL FIELDS, INC., the applicant. The Defense Mineral Exploration Administration is asked to loan $114,612.00.

Location for 30 holes to be drilled in Stage I drilling is shown on Plate 1. As the work progresses, however, it will likely become evident that some of the proposed holes might fall in areas that are geologically unfavorable for ore. WESTERN OIL FIELDS, INC. would, therefore, like the privilege of deciding whether any previously proposed hole should be drilled. It is requested that the footage saved where the proposed holes are omitted, be transferred, with the permission of the DMEA Field Team, to other parts of the Clear View Group that might be more favorable for ore.

The Clear View Group lies on the rim of the Dolores River Canyon just to the south of the "Uravan Mineral Belt" as defined by the United States Geological Survey in their Bulletin 988-A (see Figure 1). Skilled labor, materials and equipment are readily available in the Naturita-Uravan district. Personnel of Geo-Engineering will act as consulting geologists for the project.

ACKNOWLEDGMENTS

Acknowledgment of the help received during preparation of this DMEA application is hereby made to Messrs W.M. Williams and Shawe of the United States Geological Survey, Mr. R.N Usher of the Lakalucre Mines, Inc. and to Mr. M.G.McGrath for his report on the Lakalucre Mines, Inc. properties.

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT OF THE CLEAR VIEW GROUP, PREPARED FOR WESTERN OIL FIELDS, INC., 1827 GRANT STREET, DENVER

1. NAME OF APPLICANT

a. Western Oil Fields, Inc., 1827 Grant Street, Denver, Colorado. (Please address all correspondence regarding application to Geo-Engineering, 304 Main Street, Grand Junction, Colorado).

b. Western Oil Fields, Inc. is a Colorado corporation with its principal address at 1827 Grant Street, Denver, Colorado.

c. The officers are:

President
R. M. Barnholt, Sr.
1827 Grant Street
Denver, Colorado

Vice-President
W. B. Middlemist
1827 Grant Street
Denver, Colorado

Secretary-Treasurer
R. M. Barnholt, Jr.
1827 Grant Street
Denver, Colorado

d. Omitted - Not a partnership.

2. GENERAL

The following report, which is the completed DMEA application written in accordance with the instructions given in the DMEA Order No. 1, includes the completed form MF-103 and all of the necessary substantiating papers.

The letters and numbers used for the headings herein refer to the letters and numbers used on Form MF-103 as this report is designed to fill in the information that, due to space limitations, could not be placed on the MF-103 form.

In accordance with instructions given on Form MF-103, this report will be filed, in quadruplicate, at the office of Mr. W. H. King, Executive Officer, DMEA Field Team, Region IV, 224 New Customhouse, Denver 2, Colorado.

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT OF THE CLEAR VIEW GROUP, PREPARED FOR WESTERN OIL FIELDS, INC., 1827 GRANT STREET, DENVER

3. APPLICANT'S PROPERTY RIGHTS

a. & b. Legal Description and Name of Property

Exploration work is to be performed on four unpatented mining claims referred to in this report as the Clear View Group. The claims are located in the unsurveyed part of Township 42 North, Range 19 West, New Mexico Principal Meridian, in the Lower San Miguel Mining District of San Miguel County, Colorado. The claims would be in Sections 6 and 7 if the G.L.O. Grid was completed. See Figure 3.

c. Interest

Western Oil Fields, Inc., first leased this property on June 15, 1954 from Hugo W. Johnson & Co, shown as Exhibit 3. An amendment to this lease is shown as Exhibit 4. Western Oil Fields, Inc., then purchased the claims (see Exhibit 7).

d. Outstanding Liens

The only obligations against the property are those provisions set forth in the Purchase Agreement included as Exhibit 7. A Consent to Lien by original owners is included as Exhibit 6.

e. & f. Record of Title

All transactions affecting title to the claims are recorded in the office of the County Clerk and Recorder of San Miguel County at Telluride, Colorado. The claims were recorded, as follows:

Claim Name	Recording Date	Book	Page
Clear View No. 1	June 21, 1943	174	272
Clear View No. 2	June 21, 1943	174	273
Clear View No. 3	June 21, 1943	174	273
Clear View No. 4	June 21, 1943	174	274

These claims were located subsequent to July 31, 1939, but were prior to any oil and gas leases. They were not relocated, therefore, under Public Law 250.

Amended locations were filed on March 12, 1954 to correct for the changes found by a Professional Engineer's survey, as follows:

Claim Name	Recording Date	Book	Page
Clear View No. 1	March 12, 1954	231	397
Clear View No. 2	March 12, 1954	231	398
Clear View No. 3	March 12, 1954	231	399
Clear View No. 4	March 12, 1954	231	400

The claims are shown on Professional Engineer's map included as Plate 2.

Intent to Hold forms and Affidavits of Labor have been recorded on these claims for each year.

There are no conflicting claims. Plate 1 shows an overlap of the Old Gray Badger No. 2 claim, but it was recorded under the A.E.C. Circular 7 on March 12, 1954.

4. PHYSICAL DESCRIPTION OF PROPERTY

a. Operations

There has been a short drift of 65 feet driven on a small outcrop of uranium ore on the Clear View No. 1 claim. One truckload of low grade was shipped, but it was below the standards set by the mills. An 18 inch sample taken by the writers at the turn in the short adit on Clear View No. 1 assayed 0.13 U_3O_8 and 3.00 V_2O_5.

b. Production and Ore Reserves

These claims have had no past ore production and there are no proven ore reserves.

c. Geological Features

Stratigraphy: The proposed drill holes (see Plate 1 and Schedule 2) will be collared in the Salt Wash or the Brushy Basin members of the Jurrassic Morrison formation or the Cretaceous Burro Canyon formation. All holes will be drilled to the red clay underlaying the lowest sandstone lense in the ore horizon as determined by rim exposures (see Figure 4). The ore horizon, in this area, lies between two stratigraphic planes that are about 200 feet apart. The lower plane lies about 225 feet above the base of the Salt Wash member. The upper plane coincides with the top of the Salt Wash member. The Salt Wash, in this area, is about 430 feet thick. The sandstone lenses at this stratagraphical interval have been the host rocks for most of the areas uranium production.

Formations older than the Morrison are not differentiated or discussed in this report as they do not have any bearing on the exploration project.

Structure: The Clear View Group is located on the northeast flank of the Dolores anticline. The formations dip seven degrees in a northeasterly direction with a strike of North 45° West.

On the western part of the group, the terrain is very steep. The Dolores River has cut a deep precipitous canyon and has exposed geological formations ranging in age from the Triassic Chinle to the Cretaceous Burro Canyon.

Ore Deposits: There are no known ore deposits on these claims. A few tons of low grade were shipped from the short adit on Clear View No. 1, but the assay was below mill standards.

Fairly large tonnages have, however, been mined from each of the Horseshoe No. 3, No. 5 and No. 7 claims, and from the Uncle Sam and Mucha Grande claims to the north of this group. (See Figure 3).

Justification of Exploration: The Clear View Group lies just to the south of the Uravan Mineral Belt. (See Figure 1). This belt, has been defined by the United States Geological Survey in Bulletin 988-A as "a narrow elongate area in southwestern Colorado in which carnotite deposits in the Morrison formation have a closer spacing, larger size and higher grade than those in adjoining areas. The belt extends from Gateway through Uravan to Slick Rock."

The Horseshoe claims No. 3, 5 and 7 have produced about 20,000 tons on uranium ore averaging close to 0.20% U_3O_8 and 2% V_2O_5. A short distance further north, the Mucha Grande (see Figure 3) has produced about $500,000.00 worth of ore. These have all been worked from rim showings.

Just to the north of the Clear View claims, the Lakalucre Mines, Inc. and the Climax Uranium Companies have been drilling. On other claims just to the south, much road building for drill sites has just been completed by a private company.

Geologic data, gathered from U.S.G.S. and other maps and pamphlets and from surface and underground studies, furnish evidence that an exploration project on the Clear View Group can be justified.

d. Accessibility

The Clear View Group lies on the east rim of the Dolores River Canyon. The claims can be reached over 6 miles of dirt road which connects with Colorado State Highway 80 in Disappointment Valley. The distance to the Vanadium Corporation of America mill at Naturita, Colorado, is about 50 miles and it is about 65 miles to the United States Vanadium Company mill at Uravan, Colorado. It is approximately 120 miles to the Durango mill of the Vanadium Corporation of America, and 60 miles to the A.E.C. mill at Monticello, Utah.

Supplies and all necessary equipment can be obtained either at Naturita or Uravan, Colorado. There are permanent settlements with motor freight depots at both places. Railroad and airline terminals are located at Grand Junction, Colorado, which lies at a distance of 190 miles by road and 80 miles by air.

c. Availability of Manpower, Equipment, Supplies, etc.

Manpower, skilled in performing the type of drilling planned, is readily available in the area, as are dependable outlets for materials and supplies.

The equipment to be used on this project will be furnished by private contractors.

Geo-Engineering, a professional engineering firm, will supply surveying instruments and transportation for technical personnel. Geo-Engineering has principal offices at Norwood, Colorado 60 miles from the Clear View Group, and at Grand Junction, 190 miles from the property.

Drilling water will be hauled from the Dolores River about 10 road miles away.

5. THE EXPLORATION PROJECT

a. The Mineral

The mineral for which this project will explore is uranium.

b. Proposed Work

Drills for the project will be provided by private drilling companies under contract.

It is estimated that it will take 12 months to complete this project with one drill. The employment of more than one drill would result in inadequate geological control, wasted footage, and an increase in exploration costs per ton of ore discovered.

Proposed holes are shown on Plate 1. Estimated hole depths are listed in Schedule 1 and 2. 30 core drill holes are listed in Schedule 3 for Stage I drilling. 45 core drill holes are listed for Stage II. Intelligent selection of locations for all of these holes is impossible at this time. It is recommended, therefore, that a DMEA contract be allowed for a 75 core drill hole project, but that the selection of locations for the Stage II holes be made with the approval of the Defense Minerals Exploration Administration Field Team after the data from some of the preliminary drilling has been accumulated. It is anticipated that most of this Stage II drilling will be around Stage I holes that have penetrated ore. Certainly all the Stage II locations will be in areas where Stage I drilling has revealed favorable geology.

Logging and Sampling: A sampler who will also act as a field assistant for surveying will be employed to supervise the logging and sampling. An accurate log will be kept by the driller, and all barren core will be arranged on the ground and properly marked so that the geologist or sampler can carefully check the driller's log. Core from each run

will be carefully dropped out of the core barrel into a wooden trough provided for the purpose by the drilling contractor. The sampler or other competent individual will then examine the core, using a field gamma ray detecting device. If any trace of mineralization is found, the complete core "run" will be arranged in a core box provided with a hinged lid, and will be kept until such time as the geologist will have been able to properly sample the core.

Each sample will be carefully described by the geologist in a bound field book, as it is placed in the sample sack. Core losses will be prorated proportionately regardless of lithology. All samples will be sent to commercial assayers for percentage determination of U_3O_8, V_2O_5 and $CaCO_3$.

Geologic Control of Drilling: Western Oil Fields, Inc., asks the privilege of not drilling any of the proposed holes shown on Plate 1 if, in the opinion of the company's geologist, they fall in an area which, based on previous drilling information, is considered unfavorable. Footage thus saved would be used in more favorable areas, at locations approved by the DMEA Field Team. The criteria used to determine unfavorable area will, in general, be the same as those used by the United States Geological Survey and the United States Atomic Energy Commission in their drilling programs. These are discussed in a report by Doris Blackman Wier (Wier, Doris Blackman, 1952, Geologic Guides to Prospecting for Carnotite Deposits on Colorado Plateau. U.S. Geological Survey Bulletin 988-B), and the reader is referred to this writing for the information lacking in this brief discussion.

The presence of gray-green mudstone at the base of a potential ore-bearing sandstone has been an excellent guide to ore. When Stage I holes penetrate one foot or more of the gray-green mudstone at the base of a potentially ore-bearing sandstone which is over 30 feet thick, Western Oil Fields, Inc., might recommend to the DMEA Field Team Stage II drilling around such holes.

Drilling Plan: The drilling plan recommended to the Defense Minerals Exploration Administration and to Western Oil Fields, Inc., is as follows:

1. The 30 proposed core drill holes as shown on Plate 1 are arranged on a pattern to cut the predominating trend or orientation of ore bodies in the district. Generally holes are placed on a 200 foot by 500 foot grid oriented so that the 200 foot dimension is normal to the trend and staggered so that a hole in one row is between two 200 foot spaced holes in the next row. This, in effect, will cut the trend on 100 foot centers.

2. Each row of proposed core drill hole sites are placed as near on the level as possible on this steep terrain. This will allow more level drill sites and will allow Stage II drilling on the roads between favorable holes.

3. Stage II drilling should be performed only in those areas determined to be favorable. The proposed Stage I drilling is sufficient to produce the negative information necessary to delineate unfavorable areas.

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT OF THE CLEAR VIEW GROUP, PREPARED FOR WESTERN OIL FIELDS, INC., 1827 GRANT STREET, DENVER

c. Time of Exploration Project Contract

The work will start within 30 days and be completed within 12 months from the date of an exploration project contract.

d. Ability of Applicant

Western Oil Fields, Inc., has, for many years been active in the oil drilling and producing fields. Their yearly balance sheet on December 31, 1953 showed Total Assets of $27,903,205.64; Total Liabilities of $266,623.65 and Net Worth of $27,636,581.99. They have other uranium properties in the Slick Rock, Colorado, and Sundance, Wyoming, areas.

Geo-Engineering, a firm of professional engineers and geologists, with offices conveniently located at Norwood, Colorado, 60 miles from the property, and at Grand Junction, 190 miles from the property, will act as consultants to Western Oil Fields, Inc., for this project. A brief description of the experience background of the three general partners of Geo-Engineering is given below.

Louis P. Gaggini, who is Chief Geologist for Geo-Engineering, began working in uranium in 1941, as geologist for the Union Mines Development Corporation, a contractor for the United States Army Manhattan Engineering Project. Subsequent experience in carnotite exploration included almost two years with the Exploration Branch of the Atomic Energy Commission in Grand Junction and six months with the United States Vanadium Company. Mr. Gaggini was for two years Mining Superintendent of the Dulancy Mining Company, where he was in charge of all mining and exploration. This company is at present mining large tonnages from ore bodies which were discovered during that period. From August, 1952, to February, 1954, Mr. Gaggini was manager of the Colorado Uranium Division of the J. R. Simplot Company. During this period Mr. Gaggini successfully prepared applications for and administered for several months two large DMEA projects.

Harold A. Culp is a geologist and geophysicist and a copartner in Geo-Engineering with Mr. Gaggini and Mr. Lewis D. Anderson. Since graduating with a degree in economic geology from Oregon State College in 1941, Mr. Culp has, in addition to uranium, worked with gold, oil, copper, cobalt and tungsten; this includes 6 years' experience in metal mining and 5 years of geophysical prospecting in oil and mining. In addition to mine management for others, he has operated a mine in which he shared a 1/3 investment interest. His work has included the preparation of Defense Minerals Exploration Administration projects and, after approval of loan application by that agency, supervision of the project. During 1953-54, Mr. Culp was project geologist and then acting superintendent of the Bull Canyon mines of the J. R. Simplot Company.

Lewis D. Anderson, mining engineer, is a graduate from the Colorado School of Mines (registered mining engineer No. 1844 in Colorado). From December, 1946, through 1948, Mr. Anderson worked as engineer and shift boss for the Resurrection Mining Company at Leadville, Colorado. From January, 1949, through April, 1950, he worked as mining engineer in the General Chemical Division of Allied Chemical and Dye. He was mine foreman of the Rico-Argentine Mining Company, Rico, Colorado, from June, 1950, to October, 1951. Mr. Anderson then accepted employment as Division Engineer for the Dulaney Mining Company in the Gateway, Dove Creek, Monticello, and Gyp Valley areas. From June, 1952, to 1954, Mr. Anderson's duties as mining engineer covered both the mining and milling of uranium-vanadium ores and included jurisdiction over the United States Vanadium Company's uranium operations in the Edgemont, South Dakota area.

6. ESTIMATE OF COSTS

It is the desire of Western Oil Fields, Inc., that this exploration project contract be placed on a unit cost basis. Schedule 5 gives the exact amount bid per unit by Western Oil Fields, Inc., for performing the exploration work. Custom assaying is not included in the cost per foot for drilling because of the difficulty of making an accurate estimation. The $6.00 per sample figure bid for custom assaying is the exact amount charged by the A. E. C. approved assayers.

a. Independent Contracts

All drilling, and bulldozer work will be performed by independent contractors.

Drilling: The drilling will be done by private contractors. The prices quoted by firms active in the uranium field are used in Schedule 2 and 3 in the unit cost columns. Estimate for the cost of the holes proposed for Stage II drilling is based on one and a half holes for each Stage I hole and were pro-rated on the same basis as the estimated Stage I drilling. The drilling cost for Stage I is $33,852.50 and Stage II is $51,232.50. An estimated cost of $12,600.00 is made for reaming of holes necessary to the setting of casing.

Bulldozer and Tractors: These are readily available in the district for about $100.00 per day. Because many hole locations will be selected from the results of previous drilling, it is estimated that it will be necessary to have a bulldozer hauled to the group at least 6 different times at a cost of $100.00 for each round trip. It is estimated that the tractor will work at least 10 days during each visit to the Clear View Group. It is also estimated that a certain amount of rock blasting will have to be done in the preparation of roads and drill sites. An estimated allowance of $2,500.00 is made for this work.

b. Labor, Supervision, Consultants

Geo-Engineering will supervise, direct, and act as technical consultants for $650.00 per month and reasonable expenses (See Exhibit 4). A draftsman and stenographer will be employed on a part time basis to prepare necessary project reports (See Schedule 3). The field assistant will be employed by Geo-Engineering or Western Oil Fields, Inc., at a minimum of $15.00 per day, to help with surveying and to act as a sampler.

c. Operating Materials & Supplies

$150.00 per month is estimated for the cost of map reproduction and office supplies.

$100.00 is estimated for the cost of field supplies (See Schedule 4)

d. Operating Equipment

All operating equipment will be provided by independent contractors or by Geo-Engineering.

e. Rehabilitation & Repairs

None needed.

f. New Buildings, Improvements & Installations

It will be necessary for the project personnel to live on the property as it is some distance from a town. Provisions are here made for the rental of three house trailers that will be moved to the Clear View Property (See Schedule 4).

g. Miscellaneous

$100.00 per month is allowed to cover office and miscellaneous supervision to be performed by the personnel of Western Oil Fields, Inc.

Payroll taxes on the field assistant, draftsman, and typist are estimated at 10%. The cost of analytical work is not covered in the cost per foot. A separate unit cost of $6.00 per sample is added in Schedule 5.

h. Contingencies

Independent contractors vary the charge for drilling with the depth of the hole (See Schedule 2 & 3). A glance at Schedules 2 and 3 will show that it is possible that some of the Stage II drilling may exceed estimation.

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT OF THE CLEAR VIEW GROUP, PREPARED FOR WESTERN OIL FIELDS, INC., 1827 GRANT STREET, DENVER

Estimates to cover payments to contractors for trail building and drill site preparation may be inadequate. It is possible that some of the trails crossing sandstone ledges might require more rock drilling and blasting than is estimated.

Labor, supervision and consultants payments are on a monthly or hourly basis. Any event which might prolong the project will increase the cost of this item. 15% is added to cover these possible increases.

Operating material and supplies are estimated at a minimum. The destruction of a few core boxes or some other unforeseen consumption of materials and supplies might easily increase the cost of this item 20%.

New Buildings, Improvements, etc: In the event of any prolonging of the project, some personnel would have to remain on the property. 20% is added for this contingency.

Miscellaneous costs are estimated at $158.00 per month. 50% is added to provide for any extra help and for unforseen taxes.

7. APPLICANT'S SHARE OF COST

a. & b.

In accordance with the Defense Minerals Exploration Administration regulations, Western Oil Fields, Inc., is prepared to assume 25% of the cost of this project in the following manner, to wit:

The company will perform all of the necessary work and pay for all of the labor, materials and supplies. Reimbursement by the DMEA will be in accordance with Schedule 5 less 25% (i.e., the amount to be loaned by the Government for each unit of work performed will be 25% less than the amounts shown in Schedule 5).

Respectfully submitted,

GEO-ENGINEERING

LOUIS P. GAGGINI

Lewis D. Anderson
LEWIS D. ANDERSON

Harold A. Culp
HAROLD A. CULP

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE CLEAR VIEW GROUP, PREPARED FOR WESTERN OIL FIELDS, INC., 1827 GRANT STREET, DENVER

SCHEDULE 1

CORE DRILL HOLE DEPTHS

Hole No.	Claim Name	Estimated Collar Elev.	Estimated Bottom Elev.	Estimated Depth
1	Clear View #1	6850	6760	90
2	Clear View #1	6880	6790	90
3	Clear View #1	6930	6830	100
4	Clear View #1	6960	6860	100
5	Clear View #1	6960	6830	130
6	Clear View #1	6960	6900	60
7	Clear View #2	7070	6780	290
8	Clear View #2	7070	6810	260
9	Clear View #2	7160	6840	320
10	Clear View #2	7240	6860	380
11	Clear View #2	7280	6880	400
12	Clear View #3	7340	6730	610
13	Clear View #3	7310	6760	550
14	Clear View #3	7290	6790	500
15	Clear View #2	7340	6820	520
16	Clear View #2	7420	6840	580
17	Clear View #2	7460	6870	590
18	Clear View #2	7510	6870	640
19	Clear View #3	7370	6700	670
20	Clear View #3	7400	6720	680
21	Clear View #3	7420	6740	680
22	Clear View #4	7470	6770	700
23	Clear View #4	7490	6800	690
24	Clear View #4	7470	6820	650
25	Clear View #3	7310	6650	660
26	Clear View #3	7280	6670	610
27	Clear View #3	7270	6690	580
28	Clear View #4	7290	6720	570
29	Clear View #4	7290	6740	550
30	Clear View #4	7270	6760	510
		TOTAL FOOTAGE	-	13,710

CORE DRILL HOLE DEPTHS

SCHEDULE 1

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE CLEAR VIEW GROUP, PREPARED FOR WESTERN OIL FIELDS, INC., 1827 GRANT STREET, DENVER

SCHEDULE 2

DRILLING SUMMARY

Hole	Est. Depth	Est. Non-Coring	Est. 0'-200'	Est. 200'-300'	Est. 300'-400'	Est. 400'-500'	Est. 500'-600'	Est. 600'-700'
1	90		90					
2	90		90					
3	100		100					
4	100		100					
5	80		80					
6	60		60					
7	290	90	110	90				
8	260	60	140	60				
9	320	120	80	100	20			
10	380	180	20	100	80			
11	400	200		100	100			
12	610	410				90	100	10
13	550	350			50	100	50	
14	500	300			100	100		
15	520	320			80	100	20	
16	580	380			20	100	80	
17	590	390			10	100	90	
18	640	440				60	100	40
19	670	470				30	100	70
20	680	480				20	100	80
21	680	480				20	100	80
22	700	500					100	100
23	690	490				10	100	90
24	650	450				50	100	50
25	660	460				40	100	60
26	610	410				90	100	10
27	580	380			20	100	80	
28	570	370			30	100	70	
29	550	350			50	100	50	
30	510	310			90	100	10	
TOTALS	13,710	8,390	870	450	650	1,310	1,450	590
Price per foot		2.00	2.25	2.50	2.75	3.25	3.75	4.25
Costs		16,780.00	1,957.50	1,125.00	1,787.50	4,257.50	5,437.50	2,507.50

TOTAL COST, STAGE I - - - $33,852.50

DRILLING SUMMARY

SCHEDULE 2

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE CLEAR VIEW GROUP, PREPARED FOR WESTERN OIL FIELDS, INC., 1827 GRANT STREET, DENVER

SCHEDULE 3

ESTIMATE OF AMOUNTS TO BE PAID TO INDEPENDENT CONTRACTOS

Explanation	Unit	No. of Units	Cost per Unit	Total cost each Item	Grand Total
Drilling Contractor					
Stage I (see Schedule 2)	Feet	13,710	$ 2.47	$33,852.50	$ 33,852.50
Stage II Drilling					
45 Holes at 460 feet.					
Non-coring Drilling (61%)	Feet	12,627	2.00	25,254.00	
0'-200' (6%)	Feet	1,242	2.25	2,794.50	
200'-300' (3%)	Feet	621	2.50	1,552.50	
300'-400' (5%)	Feet	1,035	2.75	2,846.25	
400'-500' (10%)	Feet	2,070	3.25	6,727.50	
500'-600' (11%)	Feet	2,277	3.75	8,538.75	
600'-700' (4%)	Feet	828	4.25	3,519.00	
Total Stage II Drilling		20,700	$ 2.48	$51,232.50	$ 51,232.50
Reaming for Casing (25% Total Footage)	Feet	8,400	1.50	12,600.00	12,600.00
Road & Drill Site Building					
Moving Dozer on & off Property	Round Trip	6	100.00		$ 600.00
Dozer Rental and Operator	Day	60	100.00		6,000.00
Compressor & Blasting	Day	15	50.00		2,500.00
TOTAL ESTIMATED AMOUNTS TO BE PAID TO INDEPENDENT CONTRACTORS	Feet	34,410	$ 3.10		$106,785.00

ESTIMATE OF AMOUNTS TO BE PAID TO INDEPENDENT CONTRACTORS

SCHEDULE 3

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE CLEAR VIEW GROUP, PREPARED FOR WESTERN OIL FIELDS, INC., 1827 GRANT STREET, DENVER

SCHEDULE 4

ESTIMATED COSTS UNDER 6b, 6c, 6f & 6g, MF-103

Explanation - Heading and Letter	Cost per Hour	Cost per Day	Cost per Month	Cost per Project	Unit Cost per MF-103 Heading
6 (b) Labor, Supervision and Consultants					
Geo-Engineering Fees			$650.00	$ 7,800.00	
Geo-Engineering Expense		$10.00	250.00	3,000.00	
Draftsman 50 hrs/month	$3.00		150.00	1,800.00	
Typist 25 hrs/month	2.25		56.25	675.00	
Sampler & Field Assistant		15.00	375.00	4,500.00	
Total under 6 (b) of MF-103 (34,410)				$17,775.00	$0.52
6 (c) Operating Materials & Supplies					
Office supplies, map & drill log reproductions for Monthly reports & other correspondence with DMEA			150.00	1,800.00	
Survey stakes & other field supplies				100.00	
Total under 6 (c) of MF-103 (34,410)				$ 1,900.00	0.06
6 (f) New Buildings, Installations, etc. 3 trailer houses for project personnel (Rental)			150.00	1,800.00	
Total under 6 (f) of MF-103 (34,410)				$ 1,800.00	0.05
6 (g) Miscellaneous					
Accounting expense, etc.			100.00	1,200.00	
Payroll taxes estimated at 10% of $581.25			58.13	700.00	
Total under 6 (g) of MF-103 (34,410)				$ 1,900.00	0.06

ESTIMATED COSTS UNDER 6b, 6c, 6f & 6g, MF-103

SCHEDULE 4

GEO-ENGINEERING
304 Main Street
Grand Junction, Colorado

APPLICATION FOR DMEA PROJECT ON THE CLEAR VIEW GROUP, PREPARED FOR WESTERN OIL FIELDS, INC., 1827 GRANT STREET, DENVER

SCHEDULE 5

SUMMARY OF COSTS

	Units	No. of Units	Cost per Unit	Total Cost per Item	Grand Total
6a-Independent Contractors(sch.3)	Feet	34,410	$3.10	$106,785.00	
6b-Labor, Supervision & Consultants (schedule 4)	Feet	34,410	0.52	17,775.00	
6c-Operating Materials & Supplies (schedule 4)	Feet	34,410	0.06	1,900.00	
6d-Operating Equipment	None				
6e-Rehabilitation & repair	None				
6f-New Building, Installations	Feet	34,410	0.05	1,800.00	
6g-Miscellaneous	Feet	34,410	0.06	1,900.00	
6h-Contingencies					
For (a) above - 15%				16,017.75	
For (b) above - 15%				2,666.25	
For (c) above - 20%				380.00	
For (f) above - 20%				360.00	
For (g) above - 50%				950.00	
Calculated Unit Cost	Feet	34,410	$4.38		$150,534.00
Calculated Cost of Project using Unit Cost Bid and before allowance for Analytical Work	Feet	34,410	$4.38		$150,716.00
Analytical Work					
U_3O_8 Analysis	Sample	350	$3.50	1,225.00	
V_2O_5 Analysis	Sample	350	1.50	525.00	
$CaCO_3$ Analysis	Sample	350	1.00	350.00	2,100.00
					$152,816.00
Total Cost of Project during DMEA Participation					$152,816.00
Less 25% to be paid by WESTERN OIL FIELDS, INC.					38,204.00
AMOUNT OF DMEA LOAN REQUESTED					$114,612.00

SUMMARY OF COSTS

SCHEDULE 5

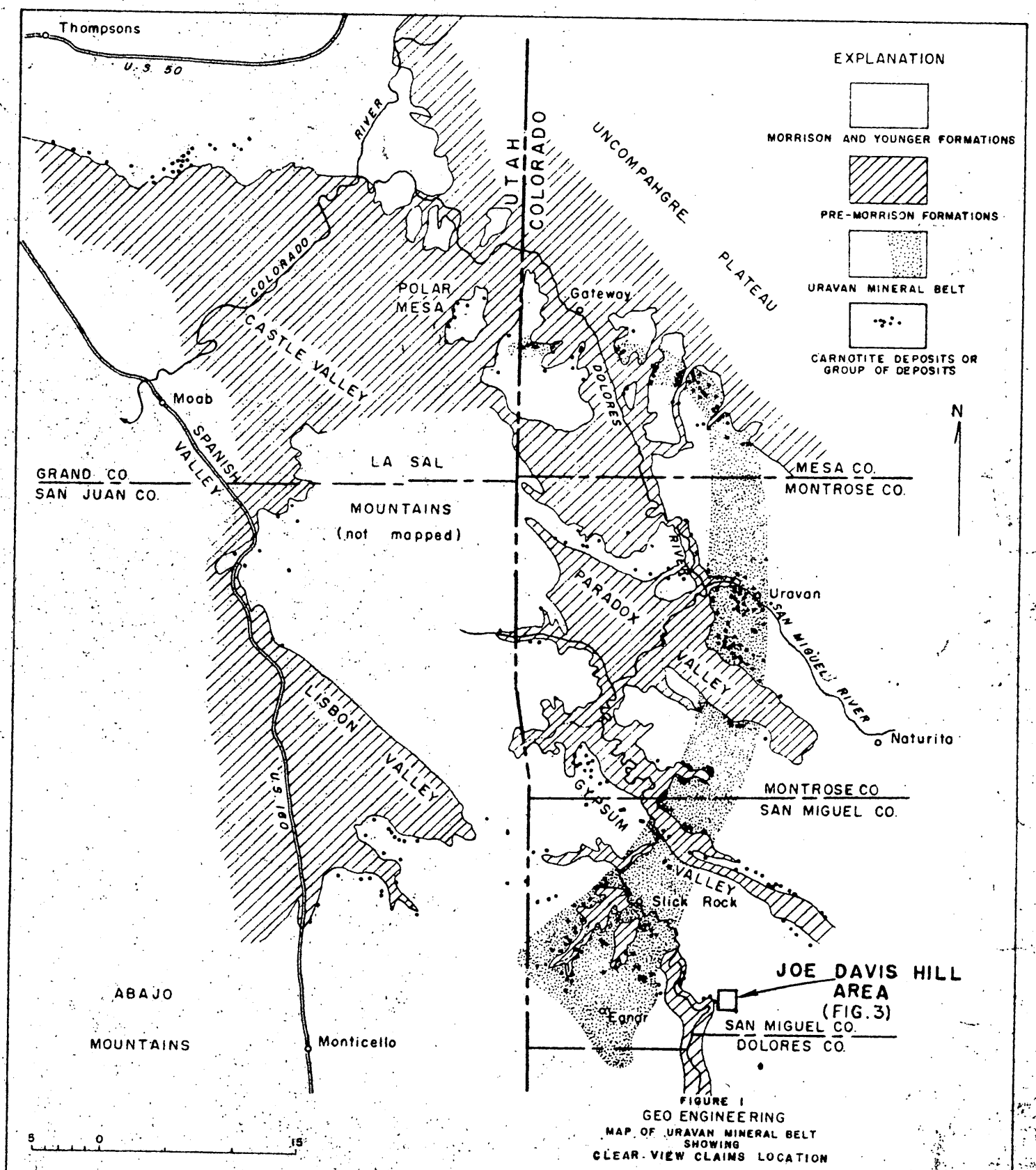
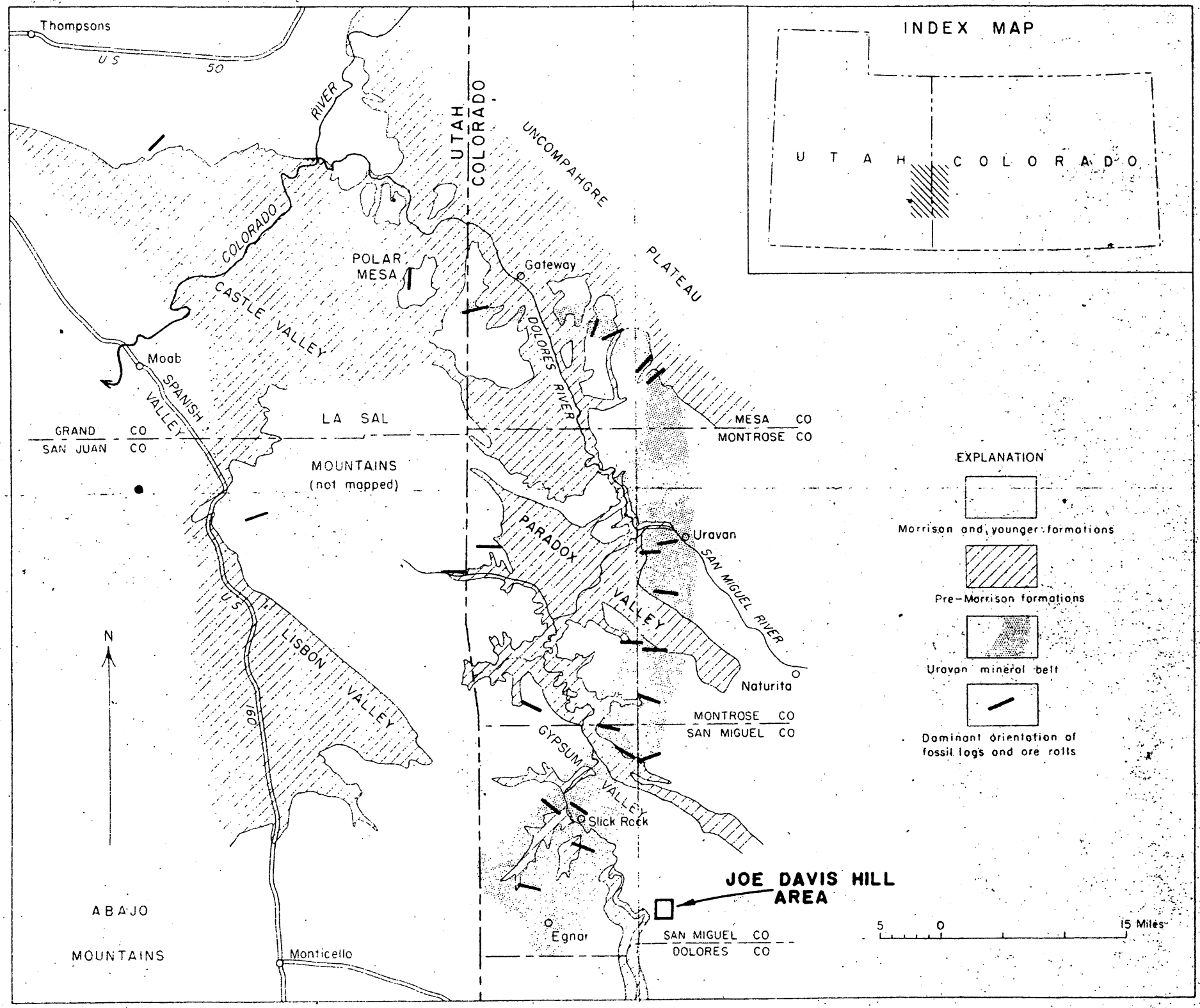
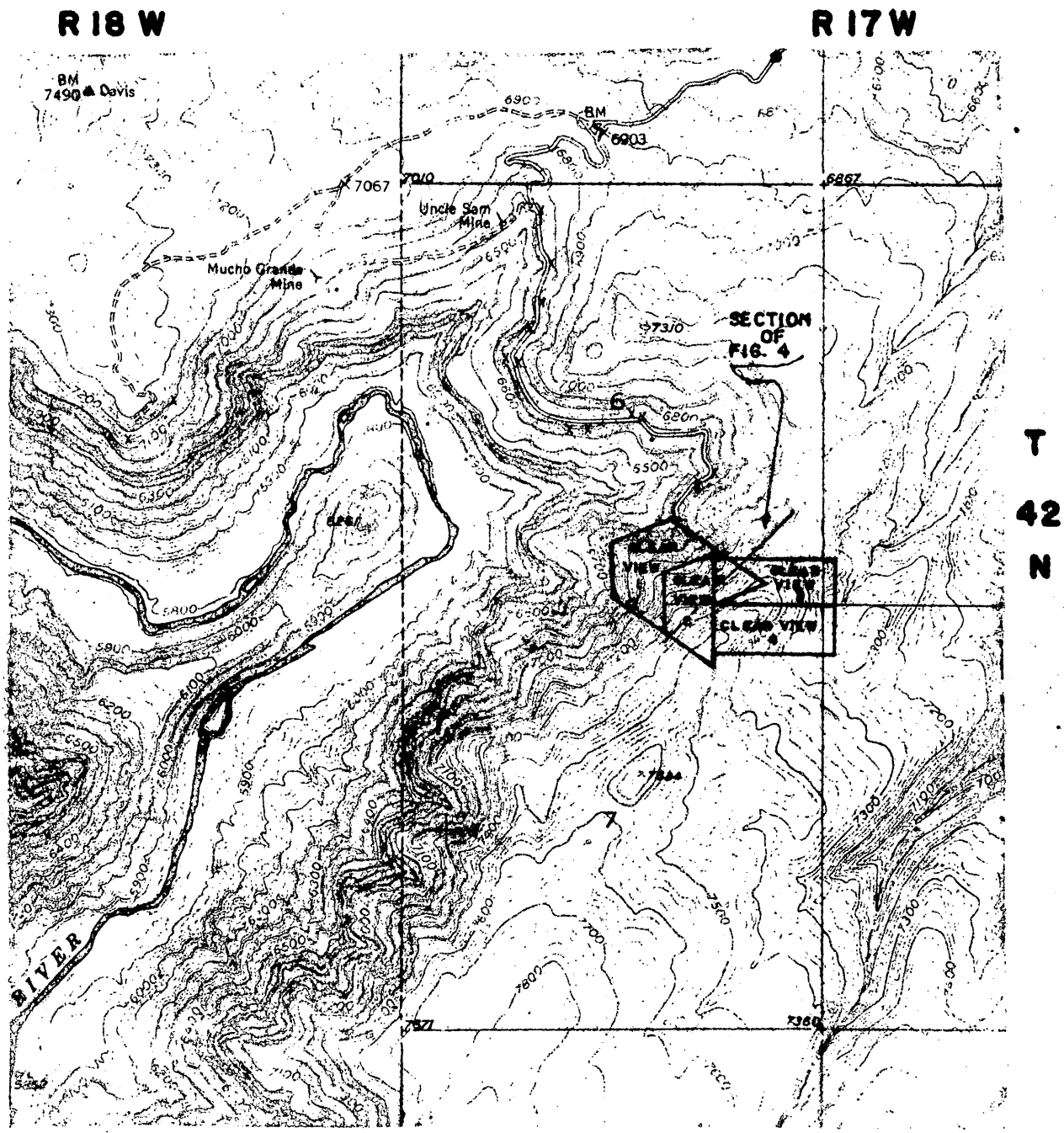


FIGURE 1
GEO ENGINEERING
MAP OF URAVAN MINERAL BELT SHOWING CLEAR-VIEW CLAIMS LOCATION

FIG. 1



MAP OF PART OF COLORADO AND UTAH, SHOWING THE DOMINANT ORIENTATION OF THE FOSSIL LOGS AND ORE ROLLS

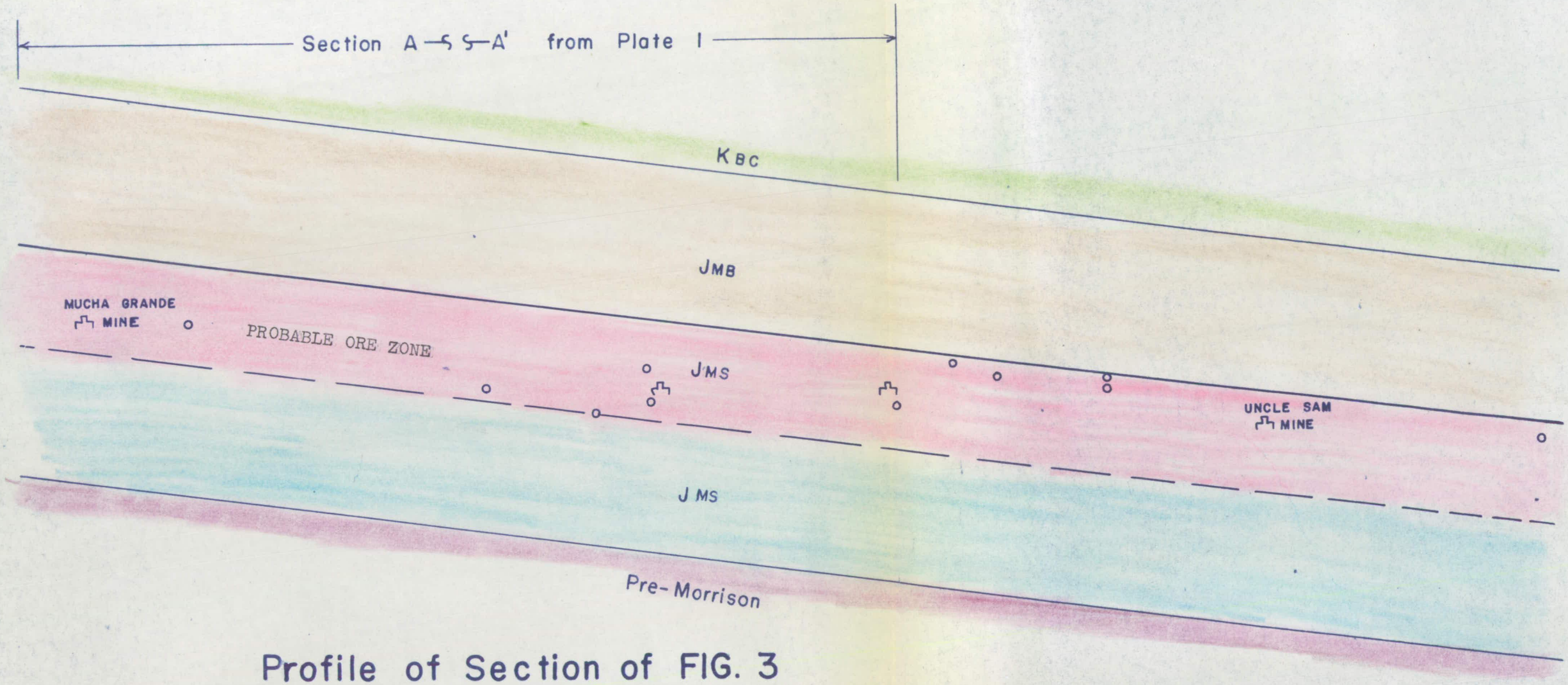


N 18° MN

SCALE
1" = 2,000'

U.S.G.S. TOPOGRAPHIC MAP
showing
JOE DAVIS HILL AREA
around
WESTERN OIL FIELDS, Inc. Prop.

FIG. 3



Profile of Section of FIG. 3

All Workings on FIG. 3 are projected onto this Section from which drilling depths can be calculated.

Depths shown on Plate 1

SCALE 1" = 200'

FIG. 4

COPY OF MINING DEED

Reception No. 116438 Time 9:30 A.M. Date; July 22nd, 1954

MINING DEED

THIS INDENTURE, made and entered this 21st day of June, A.D. 1954, between Louis O. Peiffer, party of the first part and HUGO W. JOHNSON & COMPANY, a Colorado corporation, party of the second part:

WITNESSETH

That the said party of the first part, for and in consideration of the sum of Ten Dollars and other good and valuable consideration, to him in hand paid by the party of the second part, the receipt whereof is hereby acknowledged, has granted, bargained and sold, remised, released and forever quitclaimed, and by these presents does grant, bargain and sell, remise, release and forever quit-claim unto the party of the second part, it's heirs and assigns any and allinterest in and to the following described property, situated,lying and being in Lower San Miguel Mining District in San Miguel County, State of Colorado, to-wit;

Clear View No. 1 Lode,location certificate thereto being recorded in the office of the Clerk and Recorder in the said San Miguel County, Date of recording: June 21, 1943 Recorded in Book 174 at Page 272.

Documentary stamp in amount of $2.20 attached.

Clear View No. 2 Lode, location certificate thereto being recorded in the office of the Clerk and Recorder in the said San Miguel County. Date of recording: June 21, 1943. Recorded at Page 273 in Book 174.

Clear View No. 3, Lode, location certificate thereto being recorded in the office of the Clerk and Recorder in the said San Miguel County.Date of recording:June 21, 1943. Recorded in Book 174 at Page 273.

Clear View No. 4 Lode, location certificate thereto being recorded in the office of the Clerk and Recorder in the said San Miguel County.Date of recording;June 21,1943. Recorded in Book 174 at Page 274.

Exhibit No. 2

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JAN 12 1955

(COPY)

Together with all the dips, spurs and angles, and all the metals, ores, gold and silver bearing quartz, rock and earth therein, and all the rights, privileges and franchises thereto incident, appendant and appurtenant, or therewith usually had and enjoyed; and all and singular the tenements, hereditaments and appurtenances thereunto belonging or in any wise appertaining, and the rents, issues and profits thereof; and all the estate, right, title, interest, claim and demand what-so-ever, as well in law as in equity, of the party of the first part, of, in or to the said premises, and every part and parcel thereof, with the appurtenances.

TO HAVE AND TO HOLD, all and singular, the said premises, together with the appurtenances and privileges thereto incident, unto the said party of the second part, it's heir's and assigns forever.

IN WITNESS WHEREOF, the party of the first part has hereunto set his hand and seal the day and year first above written.

LOUIS O. PEIFFER

State of Colorado)
County of San Miguel) ss

The foregoing instrument was signed, executed and delivered before me this 21st day of July A.D. 1954 and was acknowledged on the 21st day of July A.D. 1954 before me by LOUIS O. PEIFFER.

Witness my hand Notarial Seal.

John F. Hoyman
Notary Public

My Commission expires;
March 23, 1956.

Exhibit No. 2

MINING LEASE

THIS LEASE, made and entered into this 15th day of June, 1954, by and between Joe Delaney, and Johnson & Peiffer, a Partnership of the County of Montrose, State of Colorado, hereinafter called the Lessors, and the Western Oil Fields Inc., a Colorado Corporation, hereinafter called Lessee,

WITNESSETH

That Lessors, in consideration of Five Thousand Dollars ($5,000.00), One Thousand Dollars ($1,000.00) down, the receipt of which is hereby acknowledged, and Four Thousand ($4,000.00) to be paid on or before ninety (90) days from the date hereof, and the royalties hereinafter reserved and the covenants and agreements hereinafter express and by Lessee to be kept and performed, hereby grants, demises and leases to the Lessee all right, title and interest now held, or hereafter to be acquired, in and to the following described lode mining claims, situate in which is commonly known as Lower San Miguel Mining District, County of San Miguel, State of Colorado. The names of said claims and the book and pages in which the location certificates thereof are recorded in the office of the County Recorder of said county and state are as follows:

NAME	BOOK	PAGE
Clear View No. 1 Lode	174	272
Clear View No. 2 Lode	174	273
Clear View No. 3 Lode	174	279
Clear View No. 4 Lode	174	274

To Have and To Hold unto the Lessee for the term of five years from the date hereof, unless sooner forfeited or terminated as hereinafter provided, but with the right of renewal for like periods with the same terms and conditions if the covenants of this lease or any renewal thereof are fully kept and performed by Lessee and the property is in operation at the expiration of the original term or the renewal term.

In consideration of such demise, Lessee covenants and agrees with Lessors, as follows, to-wit:

1. The Lessee has examined and is familiar with the said claims and accepts them in their present condition.

2. To do and perform all necessary annual assessment work on all of said mining claims, and to make and file affidavits of labor so showing on or before the 31st day of May of each year.

Exhibit No. 3

3. To furnish Lessors, from time to time, as compiled and prepared, copies of all maps, reports and other data resulting from the operation and mining of said claims.

4. To commence mining operations on said claims within ninety days from the date hereof and thereafter shall expend for said purposes not less than the equivalent in dollar costs of fifty man days per month for each and every year during the term of this lease or any renewal thereof, unless prevented by causes or conditions over which the Lessee has no control and which could not be prevented by Lessee.

5. To work and mine said claims in accordance with approved mining methods and practices.

6. Lessee shall cause to be paid to Lessors a royalty of fifteen per cent, and to Charles J. Moynihan of Montrose, Colorado a royalty of five per cent, said royalties based upon the net mill returns of all ores mined and sold from any or all of the above described claims, including in such percentages any bonus payments paid by the Atomic Energy Commission or other governmental agency, but less haulage/charges paid by the said agencies. All production taxes levied and assessed against said mining claims shall be paid by Lessee when due and payable, and lessee shall pay all Social Security, Unemployment and Withholding taxes as may be required by state and federal laws.

7. Lessee shall maintain at all times from the commencement of work hereunder Workmen's Compensation Insurance covering all of its employees and shall conduct its operations so as to fully comply with all applicable laws, and Lessee shall indemnify and save harmless Lessors from all actions and causes of action of any nature whatsoever which may arise out of its mining operations hereunder.

8. Lessee shall make available to lessors all drilling and production records pertaining to its operations under this lease and its records of expenditures in compliance with the provisions of paragraphs #3 and #4 herein.

FORFEITURE PROVISIONS

Upon violation by Lessee of any of the covenants herein, either express or implied to be kept or performed by the Lessee, at the option of the lessors, this lease shall terminate and the lease and all rights of the Lessee hereunder shall be forfeited, and Lessors or their agents, may thereupon enter upon said mining claims and dispossess the Lessee and all persons holding thereunder, and

Exhibit No. 3

Lessors shall in such case retain all considerations theretofore received by them as liquidated damages for non-performance; provided however, that if this lease is forfeited as above provided, Lessors shall give Lessee thirty days notice in writing, by registered mail, notifying Lessee of such failure to perform, setting out in said notice the substantial facts constituting each failure, and upon failure or refusal by Lessee to cure or correct such failure within twenty days of receipt of such notice, Lessee shall surrender and deliver up possession of said mining claims and Lessee's rights under this lease shall thereupon cease and terminate; conditioned, however, upon Lessee having the right to remove all machinery and equipment and personal property belonging to Lessee from said mining claims within thirty days after said termination.

Each of the terms, conditions and stipulations herein contained shall inure and be binding upon the heirs and personal representatives and assigns of the parties.

IN WITNESS WHEREOF, The parties hereto have set their hands and seals this 15th day of June, 1954.

LESSORS

Joe Delaney

Joe Delaney

Johnson & Peiffer

By Hugo W. Johnson

LESSEE Western Oil Fields, Inc.

By R. M. Barnholt Sr.

President

Attest: R. M. Barnholt, Jr.

Secretary

State of Colorado)
County of Montrose) ss.

The foregoing instrument was acknowledged before me this 25th day of ~~June~~ July, 1954, by Joe Delaney and Hugo W. Johnson.

Witness my hand and official seal.

W. J. Hunsley

Notary Public

My commission expires

My Commission expires March 8, 1958

Exhibit No 3

State of Colorado)
City & County of ~~Montrose~~ Denver) ss.

The foregoing instrument was acknowledged before me this 29th day of July, 1954, by R. M. Barnholt, Sr., President of the Western Oil Fields, Inc., and R. M. Barnholt Jr., Secretary of the Western Oil Fields, Inc., the corporation executing the above instrument.

Witness my hand and official seal.

Lucile [illegible]
Notary Public

My commission expires March 29, 1956

Exhibit No 3

AMENDMENT OF MINING LEASE

WHEREAS, under date of June 15, 1954 the parties hereto entered into a mining lease covering the following described mining claims, situated in Lower San Miguel Mining District, County of San Miguel, State of Colorado:

NAME	BOOK	PAGE
Clear View No. 1 Lode	174	272
Clear View No. 2 Lode	174	273
Clear View No. 3 Lode	174	273
Clear View No. 4 Lode	174	274

and

WHEREAS, it is the desire of the parties hereto to amend the above referred to mining lease.

NOW THEREFORE, in consideration of the premises and other good and valuable considerations the parties hereto mutually agree to amend the above set out mining lease by adding to paragraph numbered four (4) the following:

> "Anything herein to the contrary notwithstanding it is agreed by the parties hereto that any work done in any one month in excess of the above requirement of fifty man days per month can be applied to meet the requirement of any subsequent month at the discretion of the lessee."

All terms and provisions hereof shall inure to and be binding upon the parties hereto, their heirs, successors, legal representatives and assigns.

Executed this 30th day of Apl 1954.

Hugo W. Johnson

Joe Delaney

Hugo W. Johnson and Co.

By Hugo W. Johnson
Hugo W. Johnson - President

~~Johnson & Delaney~~
Hugo W. Johnson and Co.
by: Joe Delvade
~~Vice Pres.~~

WESTERN OIL FIELDS, INC.

ATTEST:

R. M. Barnholt, Jr.
Secretary

by: R. M. Barnholt Sr.
President

Exhibit No. 4

STATE OF COLORADO)
CITY AND COUNTY)
OF DENVER)

The foregoing instrument was acknowledged before me this 6th day of Oct, 1954 by R. M. Barnholt, Sr., as President and R. M. Barnholt, Jr., as Secretary of Western Oil Fields, Inc. a corporation.

Witness my hand and official seal.

[illegible]
Notary Public

My Commission expires March 29, 1956

STATE OF COLORADO)
COUNTY OF MONTROSE)

The foregoing instrument was acknowledged before me this 30 day of Sept, 1954 by Hugo W. Johnson, as President and Troy E. Wade, as Vice-President of Hugo W. Johnson and Co., a Corporation.

Witness my hand and official seal.

Amogene L. Fagan
Notary Public

My Commission expires 10/6/56

STATE OF COLORADO)
COUNTY OF MONTROSE)

The foregoing instrument was acknowledged before me this 30 day of Sept, 1954 by Hugo W. Johnson.

Witness my hand and official seal.

Amogene L. Fagan
Notary Public

My Commission expires 10/6/56

STATE OF COLORADO)
COUNTY OF MONTROSE)

The foregoing instrument was acknowledged before me this 30 day of Sept, 1954 by Joe Delaney.

Witness my hand and official seal.

Amogene L. Fagan
Notary Public

My Commission expires 10/6/56

Exhibit No. 4

Box 257
Nucla, Colo.

Box 416
Cripple Creek, Colo.

Hugo W. Johnson & Co.

Hugo W. Johnson, President

Nucla, Colorado

Sept. 29th, 1954

Western Oil Fields Inc.,
P. O. Box 1139,
Denver, Colorado

Gentlemen;

Under date of July 22nd, 1954 this company purchased the interest of Louis O. Peiffer in the Clear View Mining Claims No. 1, 2, 3 and 4 located in San Miguel County, Colorado. Said mining deed to this company for the above ownership being duly recorded in San Miguel County, Book 223, Pages 191 and 192 under the date of July 22nd, 1954.

Your company holds a Lease and Option to Purchase on the above claims and this letter is for the purpose of informing you that so far as the work requirements are concerned, they have been validated to Dec. 31st, 1954 or until your application for a DMEA loan has been either granted or refused if same should occur previous to Dec. 31st, 1954.

It is understood that the above validation of work requirements under the above lease is being given by reason of the bulldozing operations carried on by your company and the tunnel work done by our company.

Signed;

Joe Delaney

Joe Delaney

Hugo W. Johnson

Hugo W. Johnson

Hugo W. Johnson and Co.

By Joe Delaney
Vice Pres.

Exhibit No. 5

MF-203
(Revised July 1, 1953)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Colorado, County of San Miguel, described as follows:1/

lode claims named Clear View No. 1 Book 174 Page 272
Clear View No. 2 Book 174 Page 273
Clear View No. 3 Book 174 Page 273
Clear View No. 4 Book 174 Page 274

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

2/ Western Oil Fields, Inc.
1827 Grant Street
Denver, Colorado

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production (as set forth on the reverse side hereof) and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

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

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

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof, there is hereby granted to the Government a lien upon the land above referred to and upon any production of minerals therefrom, until said royalty is fully paid or ten years have elapsed from the date of the contract, whichever occurs first.

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

4. Changes and added provisions _____

Dated this 30th day of September, 195__.

Joe Delaney [Seal]
Joe Delaney

Hugo W. Johnson [Seal]
Hugo W. Johnson

HUGO W. JOHNSON AND COMPANY [Seal]
By Troy Elwade Vice Pres.

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

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

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

Exhibit No. 6

RELEVANT CONTRACT PROVISIONS

Repayment by Operator.--a. Certification.--If at any time the Government considers that a discovery or development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Percentage royalty.--The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2,--(1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by the contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production (including any bonuses), in whatever form disposed of, including ore, concentrates, or metal, as follows:

(a) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(b) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

c. Definitions.--As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

d. Lien for Payment.--To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

e. Notice to Purchasers.--The Operator shall notify any purchaser of the production of the Government's royalty interest, and shall authorize and direct the purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets; but failure or refusal by the purchaser to comply shall not relieve the Operator of liability to pay any royalty falling due.

f. No Obligation to Produce.--This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Exhibit No. 6

PURCHASE AND SALE

AGREEMENT

THIS AGREEMENT entered into this 15th day of June by and between Joe Delaney and Johnson & Peiffer, of County of Montrose, State of Colorado, hereinafter called first parties, and the Western Oil Fields, Inc., hereinafter called the second party, WITNESSETH:

First parties agree to sell and second party agrees to purchase the following described mining claims located in the lower San Miguel mining district, County of San Miguel and State of Colorado, to-wit:

Clear View No. 1 Lode, location certificate thereto being recorded in the office of San Miguel County Clerk and Recorder's office on June 21, 1943, Book 174, page 272.

Clear View No. 2 Lode, location certificate thereto being recorded in the office of San Miguel County Clerk and Recorder's office on June 21, 1943 in Book 174, page 273.

Clear View No. 3 Lode, location certificate thereto being recorded in the office of San Miguel County Clerk and Recorder's office on June 21, 1943 in Book 174, page 273.

Clear View No. 4 Lode, location certificate thereto being recorded in the office of San Miguel County Clerk and Recorder's office on June 21, 1943 in Book 174, page 274.

As consideration therefor second party agrees to pay first party Twenty Five Thousand Dollars ($25,000.00) as follows: Five Thousand Dollars ($5,000.00 paid in the manner provided, and which constitutes part of the consideration for a lease entered into this date by and between the parties hereto, and minimum payments of Five Thousand Dollars ($5,000.00) per year to be paid on or before the 15th day of June of each and every year hereafter, until the purchase price is paid in full.

First parties agree that upon the signing of this agreement they will execute a mining deed to second party conveying the above described claims and place said deed in escrow with Brooks and Miller, Attorneys at Law, Montrose, Colorado. Said deed to be held in escrow until the purchase price is paid in full and thereupon to be delivered to second party.

This agreement, executed in triplicate originals, the date first written above, is binding upon the parties hereto, their heirs, representatives, successors and assigns.

Joe Delaney

Joe Delaney

Exhibit No.7

Johnson & Peiffer

By _____

Western Oil Fields, Inc.

By R. M. Barnholt Sr.
President

Attest: R. M. Barnholt Jr.
Secretary

State of Colorado)
County of Montrose) ss.

The foregoing instrument was acknowledged before me this 20th day of July, 1954, by Hugo W. Johnson and Joe Delaney

Witness my hand and official seal.

My Commission expires March 8, 1955
My commission expires

W. C. Huntley
Notary Public

City & State of Colorado
County of ~~Montrose~~ Denver) ss.

The foregoing instrument was acknowledged before me this 19th day of July, 1954, by R. M. Barnholt, Sr., President of the Western Oil Fields, Inc. and R. M. Barnholt Jr., Secretary of the Western Oil Fields, Inc., the corporation executing the above instrument.

Witness my hand and official seal.

_____
Notary Public

My commission expires March 29, 1956

Exhibit No.7

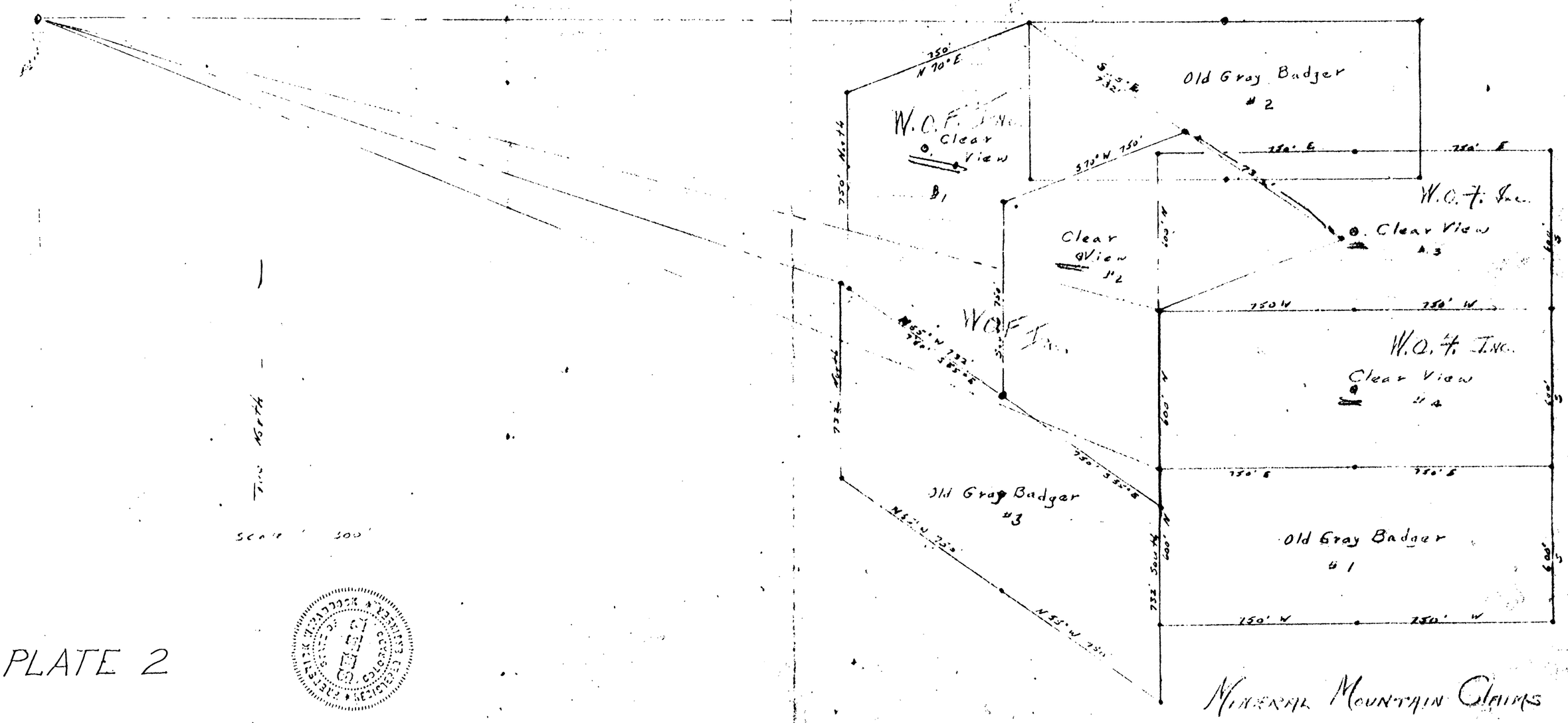
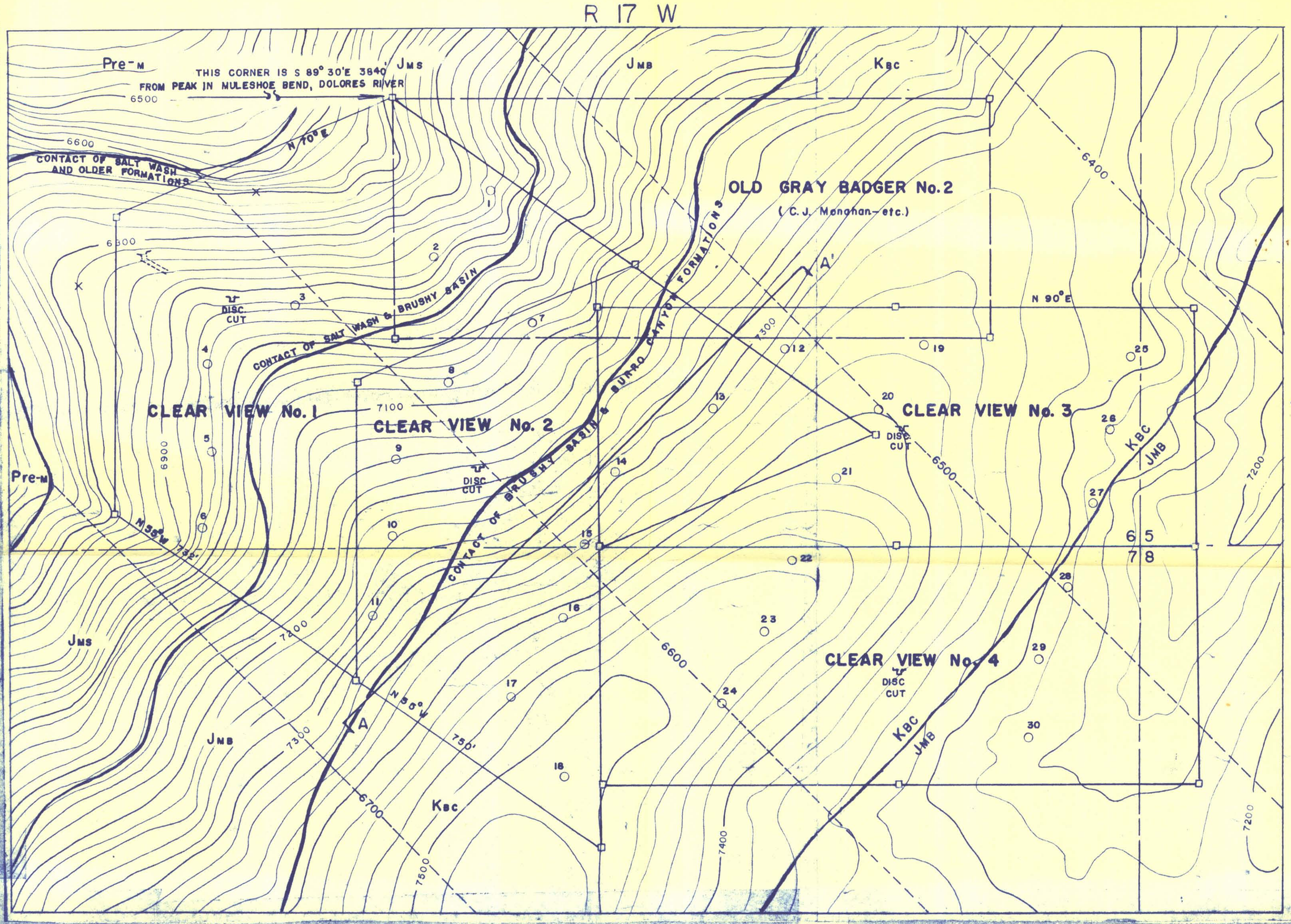

Old Gray Badger
#2
W.O.F. Inc.
Clear View
#1
Clear View
#2
W.O.F. Inc.
Clear View
#3
W.O.F. Inc.
Clear View
#4
Old Gray Badger
#3
Old Gray Badger
#1
750' N 70° E
S 70° W 750'
750' E
750' E
750' W
750' W
750' S 55° E
N 55° W 750'
750' N
600' N
600' S
750' S
750' W
750' W
Mineral Mountain Claims

PLATE 2



EXPLANATION

KBC — BURRO CANYON formation

JMB — BRUSHY BASIN member-MORRISON

JMS — SALT WASH member — MORRISON

Pre-M — Pre-MORRISON formations

WESTERN OIL FIELDS, INC. claims

Other Claims

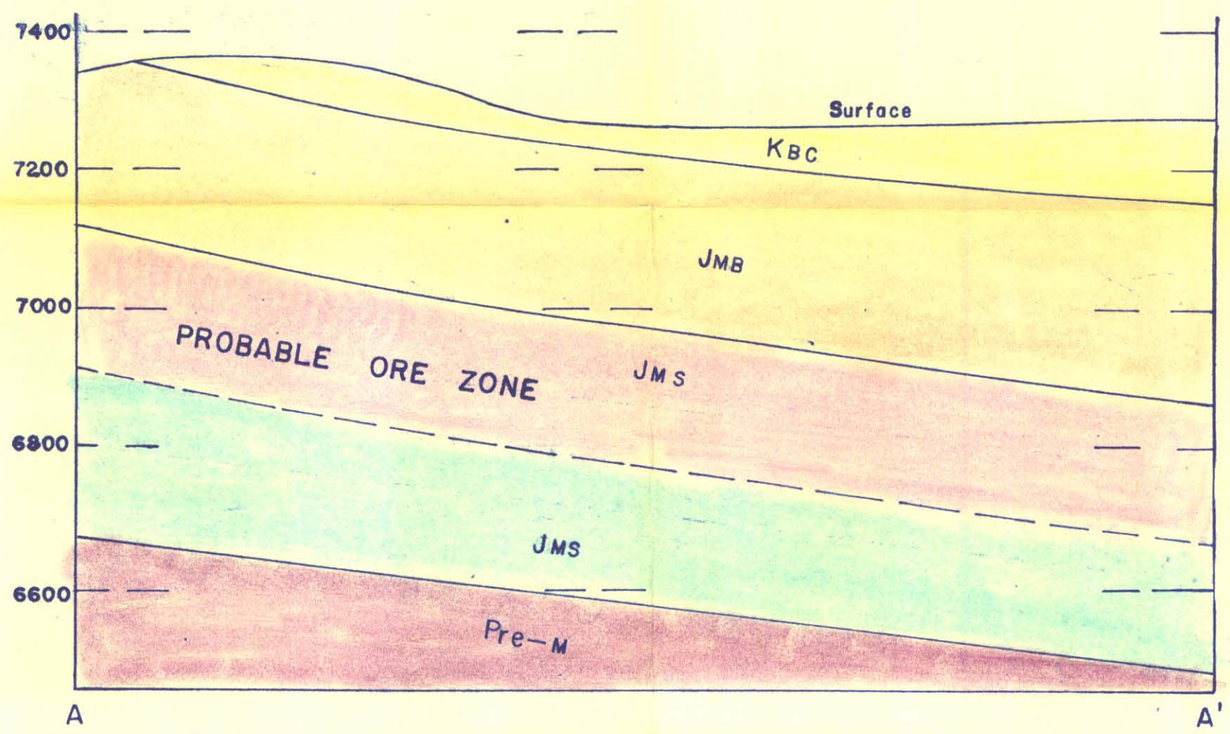
DISC CUT — Discovery Cut of Claim

Underground Workings

X — Other Workings

-6700- Sub-Surface Contours at Base of SALT WASH member. 100 foot intervals.

o 7 — Proposed Drill Holes



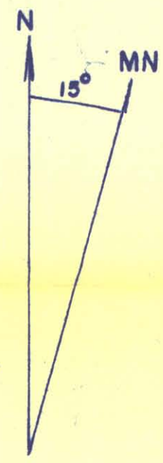
Profile of Section A—A' along the structural dip

Topography taken from U.S.G.S. JOE DAVIS HILL Quadrangle (7.5 minute Series).
Contours at 20 foot intervals.
Claim Survey by Frederick W. Paddock — Professional Engineer.

0 50 100 200 300 400 600 FEET

SCALE
1" = 200'

Plate No. 1



GEO-ENGINEERING
Map showing
CLEAR VIEW CLAIMS
Dolores River Rim
Mineral Mountain,
San Miguel County,
COLORADO
for
D.M.E.A. Application
of
Western Oil Fields, Inc.
Denver, Colorado.
December 20, 1954