DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 4792

Application
- [x] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [x] Owner's Consent to Lien and Subordination Agreement (incomplete)
- [x] Application and attachments

Right Side

- [✓] Project summary (final)
- [ ] Work Comoleted analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports

- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with transmittal, narrative and maps.

Folders No. , 2 : Maps (Use pocket folder or envelope)

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

17963

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
DATE
2/24

224 New Customhouse
Denver 2, Colorado

February 20, 1958

Memorandum

To: Secretary to the Operating Committee DMEA

From: DMEA Field Team, Region III

Subject: Docket No. DMEA 4792 (Thorium-Uranium) Atomic Minerals Corporation (Abo. et. al. claims) Lincoln County, New Mexico

Attached are three copies of a letter from the subject applicant and three copies of our reply. Also enclosed are three copies of the geological report by D. M. Ferebee, the applicant's consulting geologist. One copy of the geological report is being retained in our file.

Our records indicate this application was denied by the Administrator's letter of October 18, 1957.

The applicant states that he has visited the Washington Office DMEA and discussed his problems.

W H King

W. H. King
Executive Officer

224 New Customhouse
Denver 2, Colorado

February 20, 1958

Mr. Lee Downey
President, Atomic Minerals Corp.
P. O. Box 3
Carlsbad, New Mexico

Re: Docket No. DMEA 4792
(Thorium-Uranium) (Abo.
et. al.) Lincoln County,
New Mexico

Dear Mr. Downey:

This will acknowledge receipt of your letter dated February 18, 1958, and four copies of a geological report by D. M. Ferebee.

Copies of your letter and the geological reports are being forwarded to the Washington Office DMEA for their consideration. You will be advised of their action.

Very truly yours,

Original signed by
W. H. KING

W. H. King
Executive Officer

HMC:dp

cc; Sec. Oper. Comm. (3)
Harshman
DMEA/TUC
Emerick
Docket
Chron.

LEE DOWNEY
P. O. BOX 3
OFFICE 100 - 101 DOWNEY BLDG.
CARLSBAD, NEW MEXICO

DMEA
DEPARTMENT OF THE INTERIOR
FEB 19 1958
REGION III
DENVER, COLORADO

Re: Docket DMEA 4792 (Thorium-Uranium) Atomic Minerals Corp. (ABO, et al Claims) Lincoln County, New Mexico.

February 18, 1958

Executive Officer
DMEA
Denver, Colorado

Dear Mr. King:

In further reference to our phone conversation, I am submitting 4 copies of a supplemental report to our original Docket DMEA-4792, as requested by Mr. Ellis, Dept. of D.M.E.A., Washington, D. C. It is our definite desire to pursue this loan application to a satisfactory conclusion.

I had the pleasure of going completely through our loan application with Mr. Ellis in Washington, D. C. Mr. Ellis informed me that every point in the application was in good order, with the exception of one portion as indicated below. The Subject of Section 6.- Criteria, under DMEA Order - 1, amended, was discussed in order:

A. Answered
B. Geological Probability was questioned.
C. Answered
D. Answered
E. Answered

The subject "B" was discussed at length, whereby I was informed that the final decision was for us to prove, should we desire to continue to effect the DMEA Loan. The method by which we were told to prove our contention was as follows: select one out of a possible four sites discussed, and by the means of a semi-detailed surface and sub-surface exploration program, prove that a definite geological probability exists. We were also asked to prove that a mineable width vein of at least 100' continuity was present and that said vein tended to enrich and widen with depth. We were told that by performing the above-mentioned conditions, the question of merely mineralized coating and pinching out of the mineralized areas would be very unlikely and would improve our position considerably.

Mr. Ferebee, our consulting geologist, along with a small work force, has completed three months' of trenching, excavating, and core-drilling. In view of the results of the above-mentioned operation, I would like to call your attention to the following:

1. Rock sections throughout are very vugular, exhibiting good porosity.

LEE DOWNEY
P. O. BOX 3
OFFICE 100 - 101 DOWNEY BLDG.
CARLSBAD, NEW MEXICO

February 18, 1958

2. Mineralization is not only coated in places, but is also finely disseminated throughout the vein material and the twilight zones connecting the veins and the host rock.

3. Mineralization exceeds, by chemical assay, a cut-off point for commercial low-grade mineralization, by a value of 2 to 4 times.

4. Exploration carried out on the north side group of claims, more particularly the G-G claim, exhibits a surface vein of mineable width, extending in continuity, exceeding 100'. The same situation exists on other claims on both the north and south side groups.

5. A modest commercial operation was conceived by several months field work performed by the Atomic Energy Commission. This suggestion has been confirmed by this semi-detailed geological report.

6. The applicants have done or caused to be done, all things as recommended by the Washington D.M.E.A. office. The additional exploration has concluded; a definite geological probability does exist, nothing derrogatory was observed, justifying, we feel, our request for an unbiased and unprejudiced second inspection, the results to be based strictly on the merits of the properties.

This supplementary report is respectfully submitted.

Very truly yours,

Lee Downey

Lee Downey
President

LD:kcm

February 14, 1958

DMEA
DEPARTMENT OF THE INTERIOR
FEB 19 1958
REGION III
DENVER, COLORADO

Mr. Lee Downey, President
Atomic Minerals Corporation
Post Office Box 3
Carlsbad, New Mexico

Dear Sir:

Attached is a brief geological report showing the location and extent of the semi-detailed exploration work performed on your claims in the Capitan Mining District, Lincoln County, New Mexico.

This exploration work was performed primarily to demonstrate the geologic merit of this area as a potential thorium producing area. However, during this semi-detailed exploration work the presence of some 3000 tons of ore grade mineralization was indicated.

It should be noted that the basic geological ideas as set forth in the writers geological report of July 12, 1957 were proved throughout all the work done to date during this program and nothing contrary to those ideas set forth in the original report was noted.

Respectfully submitted,

D.M. Ferebee

D.M. Ferebee

DMF/a
Enc.

CAPITAN MOUNTAIN

MINING DISTRICT

LINCOLN COUNTY

NEW MEXICO

CAPITAN MOUNTAIN

MINING DISTRICT

LINCOLN COUNTY

NEW MEXICO

To further evaluate the thorium mineralization in the Capitan Mountains, Lincoln County, New Mexico a surface and subsurface exploration program was instituted in selected areas on both the north and south flanks of the Capitan Mountains.

PURPOSE:

The purpose of this report is to submit the results of this semi-detailed surface and subsurface exploration work performed in selected areas on both the north and south flanks of the Capitan Mountains.

The semi-detailed work was performed to further evaluate the basic geological interpretations of the area as set forth in the Geological Report of the area dated July 12, 1957.

LOCATION:

The claims on which detail work was done are located on both the north and south sides of the Capitan Mountains; Plates 1, 2, and 3.

ENCLOSURES:

Plate 1: Index map showing location of groups of claims.

Plate 2: Claim map showing north group of claims.

Plate 3: Claim map showing south group of claims.

Plate 4: Surface Radiometric Survey, part of GG No. 2 and Eagle No. 9 claims.

Plate 5: Surface Radiometric Survey, part of Eagle 7 and 8 claims.

Plate 6: East-West Cross Section GG No. 2 claim, showing excavations and Core Hole.

Plate 7: Enlarged view of mineralized zone and Core Hole No. 1 on GG No. 2 claim.

Plate 8: Radiometric log of Core Hole No. 1, GG No. 2 claim.

Plate 9: Location Map of part of Pinie No. 8 claim, showing location of Core Holes.

Plate 10: Block Diagram, parallel perspective, Pinie No. 8 claim.

Plate 11: South to North Cross Section of Core Hole 1 to Core Hole 2, Pinie No. 8 claim.

Plate 12: Radiometric Log of Core Hole No. 1, Pinie No. 8 claim.

Plate 13: Radiometric Log of Core Hole No. 2, Pinie No. 8 claim.

Plate 14: Radiometric Log of Core Hole No. 3, Pinie No. 8 claim.

DISCUSSION:

To further explore the possibilities of the thorium mineralization of the Capitan Mountains some semi-detail work was done on certain of the claims in the area.

A detailed surface radiometric survey was made in two areas of the north group of claims; the results of which are shown on Plates 4 and 5. This surface detail survey was made to

locate favorable areas for trenching and drilling exploration.

The anomolous area as mapped, northwestward from the original discovery pit, on the GG No. 2 claim (Plate 4) was further evaluated by trenching and drilling. The results of this trenching and drilling program are shown on Plates 6, 7, and 8. The trenching as shown on Plate 6 definitely proves the mineralized zone extends for a horizontal distance of 185 feet and a vertical distance of 75 feet.

The attitude and thickness of the mineralized zone was further confirmed by Core Hole No. 1 (Plate 7). Additional mineralized zones (Plate 8) were encountered in this Core Hole which have not yet been fully evaluated as to lateral extent. It is thought that these deeper mineralized zones may prove to be correlative with mineralized outcrop some 500 feet north of this Core Hole.

A vertical core drilling program was instituted on Finie No. 8 claim in the south group of claims as shown on Plate 3. Core Holes 1, 2, and 3 have been completed as shown on Plates 9, 10, 11, 12, 13, and 14.

It will be noted on the Block Diagram (Plate 10) that the mineralized zones are correlative and continuous with a steep dip into the principal mountain mass.

In Core Hole No. 2 the two mineralized zones apparently intersect at approximately a 30 degree angle. This indicated scissor, or rotational type movement on the apparent reverse fault blocks would account to some extent for the difficulty encountered to date in tracing the mineralized zones on the

surface of the Finie No. 8 claim.

The cross section (Plate 11) from Core Hole No. 1 to Core Hole No. 2 demonstrates the convergence of the upper and lower mineralized zones to form an abnormally thick continuous mineralized section in Core Hole No. 2. It is in the immediate vicinity of Core Hole No. 2 that the maximum apparent convergence, or the hinge line for the possible rotational movement, of the fault blocks occurred.

Core Hole No. 3 on the Finie No. 8 claim has some zones which have extremely high radiometric readings. These high readings have not been traced laterally for a long enough distance to make a correlation between the depth of the mineralized zones and the degree of enrichment.

Method of Calculating Radiometric Data:
The radiometric surveys of the Core Holes were made with a Drill Hole Geiger Counter, Model 121, equipped with 500 feet of cable.

This instrument was calibrated by use of a standard uranium sample and it was found that an instrument reading of 0.05 MR per hour was obtained from a standard 0.25% U_3O_8 sample. This calibration was carried further by obtaining radiometric readings from field areas where chemical assays of the thorium concentration were available and the radiometric readings obtained at these localities of known thorium concentration were converted into percent U_3O_8 equivalent.

By this method it was found that the percent U_3O_8 equivalent when multiplied by a factor of 10 would approximate the thorium content of the rocks surveyed.

A safety factor of 20% was applied to the radiometric readings prior to determining the effective section of mineralization. That is; the lower cut off point for commercial mineralization was taken as 0.06% U_3O_8 equivalent which when converted would indicate a thorium enrichment of 0.6%.

Based on the Carpo Engineering Company dry milling and concentration technique 0.5% thorium oxide can be successfully upgraded to a 10% product with the type of ore present in this area.

Reserves:

During this semi-detailed exploration work no attempt was made to prove definite ore reserves, but rather to prove the existence and continuousness of the mineralized zones.

On the GG No. 2 claim an ore reserve of some 550 tons of ore (Plate 6) was proved while trenching along the mineralized zone. The volume of ore proved was calculated by the average end areas method of exposed ore and no reserves were assigned to the unexposed prismoid of mineralized zone in an east-west direction between Core Hole No. 1 and point No. 2 on the cross section (Plate 6).

On the Pinie No. 8 claim the indicated ore reserves were calculated by correcting the effective section as noted on the radiometric logs of the Core Holes (Plates 12, 13, and 14) for dip of the mineralized zones and then multiplying this corrected thickness by the area bounded by the Core Holes and exposed mineralization.

The reserves indicated in the thin mineralized zones were carefully weighed in the calculation of the overall reserves.

By this method an indicated reserve of 2500 tons has been proved on Mine No. 8.

CONCLUSION:

The semi-detail work performed on both the north and south flanks of the Capitan Mountains has confirmed the existence and attitude of the mineralized zones as set forth in the writers original report of the area dated July 12, 1957.

No definite relationship between the depth of the mineralized zones and the total mineral enrichment was established during this investigation.

RECOMMENDATIONS:

It is recommended that this additional data be submitted to DMEA for further consideration on the existing application for an exploration loan in the area.

DRBA
RECEIVED

-Copy-

MINING DEED

This Indenture made and entered into this 1st day of September, 1957, by and between Lee Downey and Floriene C. Downey, parties of the first part, and Carlsbad Mineral Corporation (n.s.l.), party of the second part.

WITNESSETH:

WHEREAS the parties of the first part are the owners of certain unpatented lode mining claims hereinafter described and are desirous and by this instrument intend to convey to the party of the second part all of their right, title and interest in and to said claims.

NOW, THEREFORE, KNOW ALL MEN that in consideration of the sum of $10.00 thus in hand paid by the party of the second part, and for other good and valuable consideration, we, the parties of the first part, and each of us, whose names are hereunto subscribed do by these presents grant, transfer, remise, release and quitclaim unto the party of the second part, its successors and assigns, all our, and each of our right, title and interest in and to those certain unpatented lode mining claims located in the Capitan mining district, Lincoln County, State of New Mexico, TO WIT:

Nob Hill Nos. 1-3
San Pedro group Nos. 1-7
Lee Mines No. 1-3
ABO Claims Nos. 1-49
(Excluding 3, 4, 5, 6, 11, 12, 13, 14, 17 & 18)

excepting and reserving therefrom, however, an overriding royalty on uranium minerals (U_3O_8 or equivalent) produced at such mine or mines as may be worked on the claims based upon the following sliding scale:

Dry Ton Value at Mine	Royalty
$ 5.00 to $35.00	5%
35.00 to 45.00	7½%
45.00 to 55.00	10%
55.00 and above	15%

and also excepting and reserving therefrom an overriding royalty of five per cent (5%) on all other minerals produced, specifically including thorium and rare earths, said five per cent (5%) overriding royalty also based on the dry ton value at the mine.

In the event that the grantee does not commence a geologic and engineering evaluation of these claims within 60 days from the date of the execution of this indenture, then, and in such event, it is agreed and understood that the parties of the first part can elect to consider such violation of this condition subsequent as a forfeiture of the title of the party of the second part by sending to the party of the second part through registered or certified United States mail at P. O. Box 3, Carlsbad, New Mexico, a written notice of such forfeiture within ten days after the aforementioned 60 days within which the party of the second part is to commence the said geological and engineering evaluation, and provided further that in addition to said notice, the parties of the first part re-enter the claims within the said ten days.

TO HAVE AND TO HOLD, the said premises above granted and des-

cribed, with the appurtenances unto the said party of the second part, its successors and assigns forever.

WITNESS our hands and seals this 1st day of September, 1957.

Signed Lee Downey
Lee Downey

Signed Florience C. Downey
Florience C. Downey

Signed Lee Downey
Lee Downey, President

Carlsbad Mineral Corporation

(Note: Acknowledgments on original instrumnet.

Filed in County Clerk's office the 10th day of Sept., 1957, Lincoln County, State of New Mexico, in Book 17 of Miscl. Records, pages 410 to 411.

OFFICIAL FILE COPY
DMEA
RECEIVED 7 1957
CODE

MINING DEED

This Indenture made and entered into this 19th day of June 1957 by and between T. Edsil Runyan, Rachel Runyan, parties of the first part, and Carlsbad Mineral Corporation (n.s.l.), party of the second part.

WITNESSETH:

WHEREAS the parties of the first part are the owners of certain unpatented lode mining claims hereinafter described and are desirous and by this instrument intend to convey to the party of the second part all of their right, title, and interest in and to said claims.

NOW THEREFORE, KNOW ALL MEN that in consideration of the sum of $10.00 thus in hand paid by the party of the second part, and for other good and valuable consideration, we, the parties of the first part, and each of us, whose names are hereunto subscribed, do by these presents grant, transfer, remise, release and quitclaim unto the party of the second part, its successors and assigns, all our, and each of our, right, title and interest in and to those certain unpatented lode mining claims located in the Capitan mining district, Lincoln County, State of New Mexico, TO WIT;

Atom No. 1

Atom No. 3

Atom No. 4

excepting and reserving therefrom, however, an overriding royalty on uranium minerals (U_3O_8 or equivalent) produced at such mine or mines as may be worked on the claims based upon the following sliding scale:

Dry Ton value at Mine	Royalty
$5.00 to $35.00	5%
35.00 to 45.00	10%
45.00 to 55.00	12-1/2%
55.00 and above	15%

and also excepting and reserving therefrom an overriding royalty of 5% on all other minerals produced, specifically including thorium and rare earths, said 5% overriding royalty also based on the dry ton value at the mine.

In the event that the grantee does not commence a geological and engineering evaluation of these claims within 60 days from the date of the execution of this indenture, then, and in such event, it is agreed and understood that the parties of the first part can elect to consider such violation of this condition subsequent as a forfeiture of the title of the party of the second part by sending to the party of the second part, through registered or certified United States mail at P.O. Box 3, Carlsbad, New Mexico, a written notice of such forfeiture within ten days after the aforementioned 60 days within which the party of the second part is to commence the said geological and engineering evaluation, and provided further that in addition to said notice, the parties of the first part re-enter the claims within the said ten days.

TO HAVE AND TO HOLD the said premises above granted and described, with the appurtenances unto the said party of the second part, its successors and assigns forever.

WITNESS our hands and seals this 9th day of September, 1957.

T. Edsil Runyan

Rachel Runyan

Lee Downey,
Pres.

Attest:
H. C. Harvey, Secy.

(Acknowledgments)

Filed in the office of the Clerk of Lincoln County, New Mexico, Sept. 18, 1957, in Book 17, page 444 to 446, Miscl. Records.

MINING DEED

This Indenture made and entered into this 19th day of June, 1957, by and between E. J. Treat, Mary E. Treat, parties of the first part, and Carlsbad Mineral Corporation (n.s.l.), party of the second part.

WITNESSETH:

WHEREAS the parties of the first part are the owners of certain unpatented lode mining claims hereinafter described and are desirous and by this instrument intend to convey to the party of the second part all of their right, title, and interest in and to said claims.

NOW THEREFORE, KNOW ALL MEN that in consideration of the sum of $10.00 thus in hand paid by the party of the second part, and for other good and valuable consideration, we, the parties of the first part, and each of us, whose names are hereunto subscribed, do by these presents grant, transfer, remise, release and quitclaim unto the party of the second part, its successors and assigns, all our, and each of our, right, title and interest in and to those certain unpatented lode mining claims located in the Capitan mining district, Lincoln County, State of New Mexico, TO WIT:

Atom No. 2
Rocky Ridge No. 1
Luckey No. 1
Luckey No. 2
Luckey No. 3

excepting and reserving therefrom, however, an overriding royalty on uranium minerals (U_3O_8 or equivalent) produced at such mine or mines as may be worked on the claims based upon the following sliding scale:

Dry Ton Value at Mine	Royalty
$ 5.00 to $35.00	5%
35.00 to 45.00	10%
45.00 to 55.00	12-1/2%
55.00 and above	15%

and also excepting and reserving therefrom an overriding royalty of 5% on all other minerals produced, specifically

including thorium and rare earths, said 5% overriding royalty also based on the dry ton value at the mine.

In the event that the grantee does not commence a geological and engineering evaluation of these claims within 60 days from the date of the execution of this indenture, then, and in such event, it is agreed and understood that the parties of the first part can elect to consider such violation of this condition subsequent as a forfeiture of the title of the party of the second part by sending to the party of the second part, through registered or certified United States mail at P. O. Box 3, Carlsbad, New Mexico, a written notice of such forfeiture within ten days after the aforementioned 60 days within which the party of the second part is to commence the said geological and engineering evaluation, and provided further that in addition to said notice, the parties of the first part re-enter the claims within the said ten days.

TO HAVE AND TO HOLD the said premises above granted and described, with the appurtenances unto the said party of the second part, its successors and assigns forever.

WITNESS our hands and seals this 9th day of September 1957.

E. J. Treat

Mary E. Treat

(SEAL)

ATTEST:

H. C. Harvey, Secy.

Lee Downey, Pres.

Acknowledgments

Filed for record in the Clerk's office of Lincoln County, New Mexico, the 18th day of September, 1957, in Book 17, page 441 to 443, Miscl. Records.

MINING DEED

This Indenture made and entered into this 11th day of June, 1957, by and between J. V. Fritts, and Ruth C. Fritts, parties of the first part, and Carlsbad Mineral Corporation (n.s.l.), party of the second part.

WITNESSETH:

WHEREAS the parties of the first part are the owners of certain unpatented lode mining claims hereinafter described and are desirous and by this instrument intend to convey to the party of the second part all of their right, title, and interest in and to said claims.

NOW, THEREFORE, KNOW ALL MEN that in consideration of the sum of $10.00 thus in hand paid by the partyof the second part, and for other good and valuable consideration, we, the parties of the first part, and each of us, whose names are hereunto subscribed, do by these presents grant, transfer, remise, release and quitclaim unto the party of the second part, its successors and assigns, all our, and each of our right, title and interest in and to those certain unpatented lode mining claims located in the Capitan mining district, Lincoln County, State of New Mexico, TO WIT:

Monzo No. 1
Monzo No. 2
Monzo No. 3
Monzo No. 4
Monzo No. 5

excepting and reserving therefrom, however, an overriding royalty on uranium minerals (U_3O_8 or equivalent) produced at such mine or mines as may be worked on the claims based upon the following sliding scale:

Dry Ton Value at Mine	Royalty
$ 5.00 to $35.00	1-2/3%
35.00 to 45.00	3-1/3%
45.00 to 55.00	4.13%
55.00 and above	5%

and also excepting and reserving therefrom and overriding royalty of one and two-thirds percent (1-2/3%) on all other minerals produced, specifically including thorium and rare earths, said one and two-thirds percent (1-2/3%) overriding royalty also based on the dry ton value at the mine.

In the event that the grantee does not commence a geological and engineering evaluation of these claims within 60 days from the date of the execution of this indenture, then, and in such event, it is agreed and understood that the parties of the first part can elect to consider such violation of this condition subsequent as a forfeiture of the title of the party of the second part by sending to the party of the second part through registered or certified United States mail at P.O. Box 3, Carlsbad, New Mexico, a written notice of such forfeiture within ten days after the aforementioned 60 days within which the party of the second part is to commence the said geological and engineering evaluation, and provided further that in addition to said notice, the parties of the first part re-enter the claims within the said ten days.

TO HAVE AND TO HOLD the said premises above granted and described, with the appurtenances unto the said party of the second part, its successors and assigns forever.

WITNESS our hands and seals this 11th day of June 1957.

Signed: J. V. Fritts
Ruth C. Fritts

Attest:

Signed: H. C. Harvey
H. C. Harvey, Secretary-Treasurer
(SEAL)

Lee Lowney
Lee Lowney, President
Carlsbad Mineral Corporation

(Note: Acknowledgments on original instrument.
Filed in County Clerk's office the 28th of June, 1957, Lincoln County, State of New Mexico, in Book 17 of Miscl. Records, pages 256 to 258.

MINING DEED

This Indenture made and entered into this 27 day of May 1957 by and between Prince O. Poe, Herman Philpott, parties of the first part, and Carlsbad Mineral Corporation (n.s.l.), party of the second part.

WITNESSETH:

WHEREAS the parties of the first part are the owners of certain unpatented lode mining claims hereinafter described and are desirous and by this instrument intend to convey to the party of the second part all of their right, title, and interest in and to said claims.

NOW THEREFORE, KNOW ALL MEN that in consideration of the sum of $10.00 thus in hand paid by the party of the second part, and for other good and valuable consideration, we, the parties of the first part, and each of us, whose names are hereunto subscribed, do by these presents grant, transfer, remise, release and quitclaim unto the party of the second part, its successors and assigns, all our, and each of our, right, title and interest in and to those certain unpatented lode mining claims located in the Capitan mining district, Lincoln County, State of New Mexico, TO WIT:

Hungry Hill
Giveout No. 1
Giveout No. 2
Lucky Strike No. 1

excepting and reserving therefrom, however, an overriding royalty on uranium minerals (U_3O_8 or equivalent) produced at such mine or mines as may be worked on the claims based upon the following sliding scale:

Dry Ton Value at Mine	Royalty
$ 5.00 to $35.00	5 %
35.00 to 45.00	10 %
45.00 to 55.00	12½%
55.00 and above	15 %

and also excepting and reserving therefrom an overriding royalty of 5% on all other minerals produced, specifically including thorium and rare earths, said 5% overriding royalty also based on the dry ton value at the mine.

In the event that the grantee does not commence a geological and engineering evaluation of these claims within 60 days from the date of the execution of this indenture, then, and in such event, it is agreed and understood that the parties of the first part can elect to consider such violation of this condition subsequent as a forfeiture of the title of the party of the second part by sending to the party of the second part, through registered or certified United States mail at P.O. Box 3, Carlsbad, New Mexico, a written notice of such forfeiture within ten days after the aforementioned 60 days within which the party of the second part is to commence the said geological and engineering evaluation, and provided further that in addition to said notice, the parties of the first part re-enter the claims within the said ten days.

TO HAVE AND TO HOLD the said premises above granted and described, with the appurtenances unto the said party of the second part, its successors and assigns forever.

WITNESS our hands and seals this 27 day of May 1957.

Signed: Prince O. Poe
Herman Philpott

Carlsbad Mineral Corp.
Lee Downey

Attest:
(SEAL) H. C. Harvey, Sec.

(Note: Acknowledgments on original instrument.
Filed in the office of the County Clerk, Lincoln County, State of New Mexico, 26 of June, 1957, in Book 17 of Miscl. Records on pages 274 to 276.

MINING DEED

This Indenture made and entered into this 6th day of May 1957 by and between S. W. Garrison, Monahans, Texas,
James Gaulding, Carrizozo, New Mexico
parties of the first part, and Lee Downey and Associates party of the second part.

WITNESSETH:

WHEREAS the parties of the first part are the owners of certain unpatented lode mining claims hereinafter described and are desirous and by this instrument intend to convey to the party of the second part all of their right, title and interest in and to said claims.

NOW THEREFORE, KNOW ALL MEN that in consideration of the sum of $10.00 thus in hand paid by the party of the second part, and for other good and valuable consideration, we, the parties of the first part, and each of us, whose names are hereunto subscribed, do by these presents grant, transfer, remise, release and quitclaim unto the party of the second part, its successors and assigns, all our, and each of our right, title and interest in and to those certain unpatented lode mining claims located in the Capitan mining district, Lincoln County, State of New Mexico, TO WIT;

G G CLAIM No. 1;
G G CLAIM No. 2;

excepting and reserving therefrom, however, an overriding royalty on uranium minerals (U_3O_8 or equivalent) produced at such mine or mines as may be worked on the claims based upon the following sliding scale:

Dry Ton Value at Mine	Royalty
$5.00 to $35.00	5 %
35.00 to 45.00	10 %
45.00 to 55.00	12½%
55.00 and above	15 %

and also excepting and reserving therefrom an overriding royalty of 5% on all other minerals produced, specifically including thorium and rare earths, said 5% overriding royalty also based on the dry ton value at the mine.

In the event that the grantee does not commence a geological and engineering evaluation of these claims within 60 days from the date of the execution of this indenture, then, and in such event, it is agreed and understood that the parties of the first part can elect to consider such violation of this condition subsequent as a forfeiture of the title of the party of the second part by sending to the party of the second part, through registered or certified United States mail at P.O. Box 3, Carlsbad, New Mexico, a written notice of such forfeiture within ten days after the aforementioned 60 days within which the party of the second part is to commence the said geological and engineering evaluation, and provided further that in addition to said notice, the parties of the first part re-enter the claims within the said ten days.

TO HAVE AND TO HOLD the said premises above granted and described with the appurtenances unto the said party of the second part, its successors and assigns forever.

WITNESS our hands and seals this 6th day of May 1957.

Signed: S. W. Garrison
James W. Gaulding
D. M. Ferebee

(Note: Acknowledgments on original instrument.
Filed for record in the Clerk's office, Lincoln County, State of New Mexico, 26th of June, 1957, in Book 17 of Miscellaneous Records, pages 268 to 270.)

OFFICIAL FILE COPY

MINING DEED

This Indenture made and entered into this 20th day of May 1957 by and between

W. H. Donley
Shelby J. Dugas

Nevella Donley
Phyllis Jean Dugas

parties of the first part, and Carlsbad Mineral Corporation (n.s.l.), party of the second part.

WITNESSETH:

WHEREAS the parties of the first part are the owners of certain unpatented lode mining claims hereinafter described and are desirous and by this instrument intend to convey to the party of the second part all of their right, title, and interest in and to said claims.

Now THEREFORE, KNOW ALL MEN that in consideration of the sum of $10.00 thus in hand paid by the party of the second part, and for other good and valuable consideration, we, the parties of the first part, and each of us, whose names are hereunto subscribed, do by these presents grant, transfer, remise, release and quitclaim unto the party of the second part, its successors and assigns, all our, and each of our, right, title and interest in and to those certain unpatented lode mining claims located in the Capitan mining district, Lincoln County, State of New Mexico, TO WIT:

Pinie No. 1
Pinie No. 7
Pinie No. 8
Pinie No. 9
Pinie No. 10
Pinie No. 11

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AUG 12 1957
DATE | INITIALS | NOTE

excepting and reserving therefrom, however, an overriding royalty on uranium minerals (U_3O_8 or equivalent) produced at such mine or mines as may be worked on the claims based upon the following sliding scale:

Dry Ton Value at Mine	Royalty
$ 5.00 to $35.00	5 %
35.00 to 45.00	10 %
45.00 to 55.00	12½%
55.00 and above	15 %

and also excepting and reserving therefrom an overriding royalty of 5% on all other minerals produced, specifically including thorium and rare earths, said 5% overriding royalty also based on the dry ton value at the mine.

In the event that the grantee does not commence a geological and engineering evaluation of these claims within 60 days from the date of the execution of this indenture, then, and in such event, it is agreed and understood that the parties of the first part can elect to consider such violation of this condition subsequent as a forfeiture of the title of the party of the second part by sending to the party of the second part, through registered or certified United States mail at P.O. Box 3, Carlsbad, New Mexico, a written notice of such forfeiture within ten days after the aforementioned 60 days within which the party of the second part is to commence the said geological and engineering evaluation, and provided further that in addition to said notice, the parties of the first part re-enter the claims within the said ten days.

TO HAVE AND TO HOLD the said premises above granted and described, with the appurtenances unto the said party of the second part, its successors and assigns forever.

WITNESS our hands and seals this 20th day of May 1957.

Signatures: Shelly J. Dugas
Phyllis Jean Dugas

W. H. Donley
Nevella Donley

Thomas Donnelly
Att. in Fact.

Signed: Lee Downey, Pres.
Carlsbad Mineral Corp.

Attest: H.C. Harvey
Sec.

(Note: Acknowledgements on original instrument.

Filed in the Clerk's office, Lincoln County, State of New Mexico, 26th of June 1957, in Book 17, Miscellaneous Records, Pages 262 to 264.

MINING DEED

This Indenture made and entered into this 4th day of June 1957, by and between W. H. Donley, Nevella Donley, Shelby J. Dugas, Phyllis Jean Dugas, parties of the first part, and Carlsbad Mineral Corporation (n.s.l.), party of the second part.

WITNESSETH:

WHEREAS, the parties of the first part are the owners of certain unpatented lode mining claims hereinafter described and are desirous and by this instrument intend to convey to the party of the second part all of their right, title, and interest in and to said claims.

NOW, THEREFORE, KNOW ALL MEN that in consideration of the sum of $10.00 thus in hand paid by the party of the second part, and for other good and valuable consideration, we, the parties of the first part, and each of us, whose names are hereunto subscribed, do by these presents grant, transfer, remise, release and quitclaim unto the party of the second part, its successors and assigns, all our, and each of our right, title and interest in and to those certain unpatented lode mining claims located in the Capitan mining district, Lincoln County, State of New Mexico, TO WIT:

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Monzo No. 1
Monzo No. 2
Monzo No. 3
Monzo No. 4
Monzo No. 5

excepting and reserving therefrom, however, an overriding royalty on uranium minerals (U_3O_8) or equivalent) produced at such mine or mines as may be worked on the claims based upon the following sliding scale:

Dry Ton Value at Mine	Royalty
$5.00 to $35.00	3-1/3%
35.00 to 45.00	6-2/3%
45.00 to 55.00	8.37%
55.00 and above	10%

and also excepting and reserving therefrom an overriding royalty of three and one-third percent (3-1/3%) on all other minerals produced, specifically including thorium and rare earths, said three and one-third percent (3-1/3%) overriding royalty also based on the dry ton value at the mine.

In the event that the grantee does not commence a geological and engineering evaluation of these claims within 60 days from the date of the execution of this indenture, then, and in such event, it is agreed and understood that the parties of the first part can elect to consider such violation of this condition subsequent as a forfeiture of the title of the party of the second part by sending to the party of the second part through registered or certified United States mail at P.O. Box 3, Carlsbad, New Mexico, a written notice of such forfeiture within ten days after the aforementioned 60 days within which the party of the second part is to commence the said geological and engineering evaluation, and provided further that in addition to said notice, the parties of the first part re-enter the claims within the said ten days.

TO HAVE AND TO HOLD the said premises above granted and described, with the appurtenances unto the said party of the second part, its successors and assigns forever.

WITNESS our hands and seals this 4th day of June 1957.

Signatures:

W. H. Donley
Nevella Donley

Thomas Donnelly
Attorney-in-Fact

Shelby J. Dugas
Phyllis Jean Dugas

Lee Downey
Lee Downey, President
Carlsbad Mineral Corporation

Attest:
(SEAL) Signed: H.C.Harvey
H.C. Harvey, Secretary-Treasurer

(Note: Acknowledgments on original instrument.
Filed in the office of County Clerk, Lincoln County, State of New Mexico, 26th of June 1957, Book 17, Miscl. Records, page 259 to 261.

MINING DEED

This Indenture made and entered into this 1st day of June, 1957, by and between

Jess Garrison and Afrey A. Garrison, his wife;

Charlie Leslie and Alice Joy Leslie, his wife;

parties of the first part, and Lee Downey and Associates, party of the second part.

WITNESSETH:

WHEREAS, the parties of the first part are the owners of certain unpatented lode mining claims hereinafter described and are desirous and by this instrument intend to convey to the party of the second part all of their right, title, and interest in and to said claims.

NOW, THEREFORE, KNOW ALL MEN that in consideration of the sum of $10.00 thus in hand paid by the party of the second part, and for other good and valuable consideration, we, the parties of the first part, and each of us, whose names are hereunto subscribed, do by these presents grant, transfer, remise, release and quitclaim unto the party of the second part, its successors and assigns, all our, and each of our, right, title and interest in and to these certain unpatented lode mining claims located in the Capitan mining district, Lincoln County, State of New Mexico, TO WIT:

Topper No. 1	Eagle No. 5
Topper No. 2	Eagle No. 6
Topper No. 3	Eagle No. 7
Topper No. 4	Eagle No. 8
Topper No. 5	Eagle No. 9
Topper No. 6	Eagle No. 10
Little Joe	Eagle No. 11
Paul	Eagle No. 12
Eagle No. 1	Eagle No. 13
Eagle No. 2	Eagle No. 14
Eagle No. 3	Eagle No. 15
Eagle No. 4	Eagle No. 16

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DATE INITIALS CODE

excepting and reserving therefrom, however, an overriding royalty on uranium minerals (U_3O_8) or equivalent) produced at such mine or mines as may be worked on the claims based upon the following sliding scale:

Dry Ton Value at Mine	Royalty
$ 5.00 to $35.00	5 %
$35.00 to 45.00	10 %
45.00 to 55.00	12½%
55.00 and above	15 %

and also excepting and reserving therefrom an overriding royalty of 5% on all other minerals produced, specifically including thorium and rare earths, said 5% overriding royalty also based on the dry ton value at the mine.

Parties of the first part specifically reserve ownership of the existing cabin located on the Paul Claim, and also specifically reserve perpetual, free and uninhabited ingress and egress thereto. Should the party of the second part wish to purchase said cabin, it may do so within a period of two years from the date of this Deed for the sum of $1,000.00. During the proposed exploration program on subject claim or claims, party of the second part may rent and/or lease the cabin from the parties of the first part for their sole and exclusive use, for the sum of $25.00 per calendar month.

In the event that the grantee does not commence a geological and engineering evaluation of these claims within 60 days from the date of the execution of this indenture, then, and in such event, it is agreed and understood that the parties of the first part can elect to consider such violation of this condition subsequent as a forfeiture of the title of the party of the second part by sending to the party of the second part, through registered or certified United States mail at P.O. Box 3, Carlsbad, New Mexico, a written notice of such forfeiture within ten days after the aforementioned 60 days within which the party of the second part is to commence the said geological and engineering evaluation, and provided further that in addition to said notice, the parties of the first part re-enter the claims within the said ten days.

TO HAVE AND TO HOLD the said premises above granted and described, with the appurtenances unto the said party of the second part, its successors and assigns forever.

WITNESSOUR HANDS and seals this 1st day of June 1957.

Jess C. Garrison	Charlie Leslie
Afrey A. Garrison	Alice Joy Leslie
D. M. Ferebee	

(Note: - Acknowledgments on original instrument)

Filed in the office of the County Clerk, Lincoln County, State of New Mexico, 26th day of June, 1957, and recorded in Book 12 of Miscellaneous Records on pages 265 to 267.

OFFICIAL FILE COPY
SNEA
RECEIVED AUG 18 1957
DATE | INITIAL | CODE

NET PROFITS CONTRACT

STATE OF NEW MEXICO :
:
COUNTY OF EDDY :

THIS AGREEMENT, made and entered into by and between CARLSBAD MINERAL CORP., hereinafter referred to as Party of the First Part, and LEE DOWNEY, and Associates, hereinafter referred to as Party of the Second Part,

W I T N E S S E T H:

For and in consideration of One Dollar ($1.00) and other good and valuable considerations, receipt of which is hereby acknowledged, first party does hereby sell, grant, bargain and convey unto second party all of the properties held by Parties of First Part subject to the following terms, conditions and reservations:

I.

The interest conveyed constitutes a determinable fee and it shall terminate and revert to the party of the first part unless within 60 days from the date of execution of this instrument the party of the second part causes engineers and geologists to begin a study for the purpose of determining the extent of the minerals under the property; and if the determinable fee is not terminated by such failure, it shall nevertheless terminate and revert to the party of the first part unless the party of the second part begins construction of a mill with a minimum capacity of at least 50 tons for the processing of such minerals, within one year from the execution of this instrument, or in lieu thereof starts building up a stockpile of ore in order to determine that the ore reserves are sufficient to pay for a mill.

II.

Out of the properties herein conveyed and assigned to second party, first party reserves unto himself, his heirs and assigns an overriding royalty measured by twenty-five percent (25%) of the net profits (as hereinafter defined) realized by second party, his successors and assigns, from all minerals produced, saved and sold from the properties herein assigned and conveyed to second party.

III.

The term net profits as used in this agreement shall mean the gross proceeds, excluding royalties and after all milling and processing has been completed, from the sale of all minerals produced, saved and sold from the premises herein assigned, less the following expenses: All mining and exploratory costs including core drilling, engineering and geological costs; the expense of building and maintaining all roads necessary for the exploration and development of the property; the cost of constructing all mills and treatment processes necessary for the preparation for market of the minerals produced and saved from the property, or in lieu thereof such charge for depreciation as is allowable for income tax purposes; expenses incurred in connection with examining, perfecting, and defending title to the property conveyed including attorneys fees incurred in connection therewith; losses, damages or liabilities sustained or incurred in the operation of said property; any taxes upon the property, or upon the extraction of minerals from the property, or the milling or processing of such minerals, (excluding however any income taxes) premiums paid for workman's compensation insurance, public liability, fire, wind, tornado or other necessary insurance; and such reasonable charge for indirect over-head such as executive salaries, employees who do not devote full time to the project, office over-head which is not directly allocable to this project and travel expenses of officers; provided however, that such charge may not exceed five percent of the gross income from the properties after the payment of royalties and is to be computed upon an annual basis.

IV.

First and second parties mutually agree that in the event second party fails to operate or produce these properties for any

reason for a period of twelve (12) months, first party may serve notice in writing upon second party that if operation or production of the properties are not resumed within thirty (30) days from the giving of such notice, that first party will assume the management and operation of the properties. Should second party fail to resume operation or production of the properties within such thirty (30) day period, then at the expiration of such period first party may assume the operation or production of the property, and this contract shall become null and void.

V.

First party shall be entitled to receive his percentage of net profits at the end of any month whenever it shall appear at the end of such month that net profits have been realized by second party out of the production or other credits accruing to the account of the interest herein conveyed, taking into consideration all expenses theretofore incurred in connection with the interest herein conveyed and all accounts payable or receivable with regard thereto at the end of said month, and all payments of net profits theretofore made by second party to first party. In making the foregoing computations, deficits shall be carried over from month to month and the accumulated totals thereto applied against subsequent earnings before profits will be considered to have accrued. Payments of such net profits shall be made within twenty days after the end of any month in which net profits have been so realized.

VI.

The overriding royalty measured by twenty-five percent (25%) of the net profits from the operation of the property which is retained under this instrument is owned by several persons as undivided owners and each such owner is to be paid directly for his share of the net profits. The parties initially entitled to receive a share of the net profits, and the participation of each, shall be certified to second party by Carlsbad Mineral Corp. or assigns, within six (6) months from the execution of this instrument, and their ownership will be assumed to continue until second party is notified of a transfer of title and furnished with proof of such transfer.

VII.

Second party shall keep an accurate record of all accounts hereunder, showing the costs and expenses incurred and charges made and all receipts and credits received, which record shall be available at all reasonable times for the examination and inspection of first party or his duly authorized representatives. Within twenty days after the close of each calendar month, second party shall furnish to first party a statement of investment and expenses incurred and credits and receipts during such calendar month.

VIII.

That the second party does agree to do the annual assessment work as required by Federal mining law and such work be completed and affidavit of such furnished on all claims transferred to second party by April 15th, 1958, and each subsequent year.

IX.

Second party shall have exclusive charge, control and supervision of all operations of every kind to be conducted on said land for the development, production, treating, handling and marketing of any minerals therefrom as well as the payment of rentals, taxes, and other charges which may arise or become due.

X.

It is understood that while the second party is operating the property, first party shall be held blameless of any liability incurred by party of the second part.

This contract and conveyance shall be effective as of the 29th day of January, 1957.

WITNESS OUR SIGNATURES this 29th day of January, 1957.

Signed: Lee Downey
Lee Downey, President
Carlsbad Mineral Corp.

Attest:

(SEAL) Signed: H. C. Harvey
H. C. Harvey, Secretary
Carlsbad Mineral Corp.

CARLSBAD MINERAL CORP.
STOCKHOLDERS

Signatures:

Lee Downey	Earl Bowers
R. Dale Harris	Loye C. Ruckman
Charles B. Galt	H. C. Harvey
Robert Nymeyer	
A. J. Brandon	

Parties of First Part

Signed: Lee Downey
Lee Downey and Associated

Party of Second Part

(Note: Acknowledgments on original instrument).

EXHIBIT "A"

This Exhibit "A" referred to in Contract Agreement by and between Lee Downey and Associates and Atomic Minerals Corporation, covering assignment of properties held by Lee Downey and Associates, and which is incorporated by reference therein, is as follows, to-wit:

Federal Mining Claims recorded in Office of County Clerk, Lincoln County, New Mexico, as follows:

1 - Hungry Hill No. 1	subject to 5% overriding royalty
2 - Give Out No. 1 & 2	" " " " "
1 - Lucky Strike No. 1	" " " " "
3 - Nob Hill No. 1 - 3	" " " " "
7 - San Pedro Group No. 1 - 7	" " " " "
3 - Lee Mines No. 1 - 3	" " " " "
39 - ABO Claims No. 1 - 49 (excluding 3, 4, 5, 6, 11, 12, 13, 14, 17, 18. These dropped for lack of mineralization)	" " " " "
3 - Lucky No. 1 - 3	" " " " "
4 - Atom No. 1 - 4	" " " " "
1 - Rocky No. 1	" " " " "
5 - Monzo No. 1 - 5	" " " " "
6 - Pinie No. 1, 7, 8, 9, 10 & 11	" " " " "

(Note): Filed in the office of the County Clerk, Lincoln County, State of New Mexico, 26th of June, 1957, in Book of Contracts, Agreements and Leases, page 297 to 303.

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator _____
Docket No. DMEA- _____
Contract No. Idm-E _____
Contract Date _____

DMEA
DEPARTMENT OF THE INTERIOR

OCT 2 - 1957
REGION III
DENVER, COLORADO

RECEIVED
OCT 7 1957
D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Lincoln, State of New Mexico, described ~~XXXXXXXXXX~~ in a Mining Deed dated May 20, 1957 and recorded in Book 17 Misc. Records, Pages 262 to 264, to wit:

Claim	Book	Page
Pinie No. 1	A-15	118
Pinie No. 7	A-15	119
Pinie No. 8	A-15	120
Pinie No. 9	A-15	121
Pinie No. 10	A-15	122
Pinie No. 11	A-15	123

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

Overriding royalty reserved in a Mining Deed dated May 20, 1957, and recorded in Book 17 Misc. Records, Pages 262 to 264.

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: NONE (State "None" or "See Annex No.____")

Dated this 7th day of September, 1957.

W. H. Donley W. H. Donley	[Seal]	2414 Mt View Dr. Carlsbad	[Address]
Nevella Donley Nevella Donley	[Seal]	2414 Mt View Dr. Carlsbad	[Address]
Shelby J. Dugas Shelby J. Dugas	[Seal]	1038 Birch Lane, Carlsbad N.M.	[Address]
Phyllis Jean Dugas Phyllis Jean Dugas	[Seal]	1038 Birch Lane, Carlsbad N.M.	[Address]
	[Seal]		[Address]
	[Seal]		[Address]

I, _____ certify that I am the _____ _____ (Secretary, etc.) of the corporation named herein; that _____ _____ who signed this agreement was then _____ (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____ [Corporate Seal]

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

DMEA
DEPARTMENT OF THE INTERIOR
OCT 2 - 1957
REGION III
DENVER, COLORADO

RECEIVED
OCT 7 1957
D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Lincoln, State of New Mexico, described ~~XXXXXXXXXXX~~ in a Mining Deed dated May 6, 1957, and recorded in Book 17 Misc. Records, Pages 268 to 270, to wit:

Claim	Book	Page
G.G. No. 1	A-18	209
G. G. No. 2	A-18	210

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

Overriding royalty reserved in a Mining Deed dated May 6, 1957, and recorded in Book 17 Misc. Records, Pages 268 to 270.

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: NONE (State "None" or "See Annex No.____")

Dated this 14th day of September, 1957.

S. W. Garrison	[Seal]	Carrizozo NM	[Address]
James W. Gaulding	[Seal]	Carrizozo NM	[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

I, _____ certify that I am the _____ _____ (Secretary, etc.) of the corporation named herein; that _____ _____ who signed this agreement was then _____ (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

[Corporate Seal]

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

RECEIVED
OCT 8 1957
DMEA

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

DMEA
DEPARTMENT OF THE INTERIOR
OCT 2 - 1957
REGION III
DENVER, COLORADO

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Lincoln, State of New Mexico, described ~~XXXXXXXXXXX~~ in a Mining Deed dated June 1, 1957, and recorded in Book 12 Misc. Records, Pages 265 to 267.

Refer to Annex I attached.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

Overriding royalty reserved in a Mining Deed dated June 1, 1957, and recorded in Book 12 Misc. Records, Pages 265 to 267.

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: NONE (State "None" or "See Annex No. ____")

Dated this 7th day of September, 1957.

Jess C. Garrison	[Seal]		[Address]
Afrey A. Garrison	[Seal]		[Address]
Charlie Leslie	[Seal]		[Address]
Alice Joy Leslie	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

I, _____ certify that I am the _____ _____ (Secretary, etc.) of the corporation named herein; that _____ _____ who signed this agreement was then _____ (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____

[Corporate Seal]

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DMEA
RECEIVED 7 1957

ANNEX I

This Annex I referred to in Form MF-205, CONSENT TO LIEN and SUBORDINATION AGREEMENT, refers to that certain land in the County of Lincoln, State of New Mexico, in a Mining Deed dated June 1, 1957, and recorded in Book 12 Misc. Records, Pages 265 to 267 as follows:

Claim	Book	Page
Topper No. 1	A-20	435
Topper No. 2	A-20	436
Topper No. 3	A-20	437
Topper No. 4	A-20	438
Topper No. 5	A-20	439
Topper No. 6	A-20	440
Little Joe	A-18	451
Paul	A-18	452
Eagle No. 1	A-16	486
Eagle No. 2	A-16	487
Eagle No. 3	A-16	488
Eagle No. 4	A-16	489
Eagle No. 5	A-16	490
Eagle No. 6	A-16	491
Eagle No. 7	A-16	493
Eagle No. 8	A-16	492
Eagle No. 9	A-18	120
Eagle No. 10	A-18	121
Eagle No. 11	A-20	429
Eagle No. 12	A-20	430
Eagle No. 13	A-20	431
Eagle No. 14	A-20	432
Eagle No. 15	A-20	433
Eagle No. 16	A-20	434

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator _____
Docket No. DMEA- _____
Contract No. Idm-E _____
Contract Date _____

RECEIVED
D.M.E.A.

DMEA
DEPARTMENT OF THE INTERIOR
OCT 2 - 1957
REGION III
DENVER, COLORADO

CONSENT TO LIEN and SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Lincoln, State of New Mexico, described ~~as follows:~~ 2/ in a Mining Deed dated June 4, 1957, and recorded in Book 17 Misc. Records, Pages 259 to 261 and in a Mining Deed dated June 11, 1957, and recorded in Book 17 Misc. Records, Pages 256 to 258, to wit:

Claim	Book	Page
Monzo No. 1	A-15	124
Monzo No. 2	A-15	125
Monzo No. 3	A-15	126
Monzo No. 4	A-15	127
Monzo No. 5	A-15	128

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

Overriding royalty reserved in a Mining Deed dated June 4, 1957, and recorded in Book 17 Misc. Records, Pages 259 to 261 and in a Mining Deed dated June 11, 1957, and recorded in Book 17 Misc. Records, Pages 256 to 258.

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: NONE (State "None" or "See Annex No.____")

Dated this 10th day of Sept. 10, 1952.

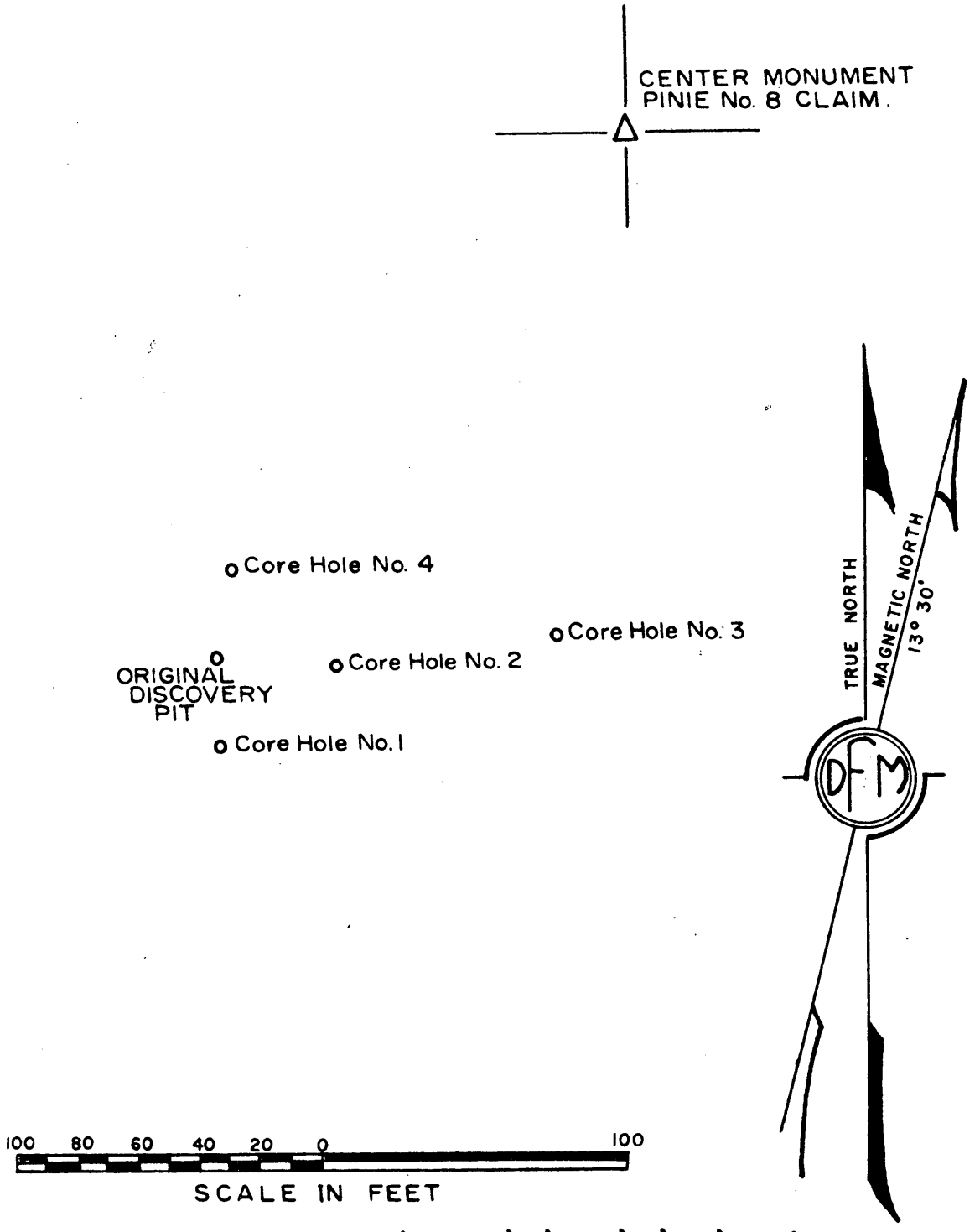
J. V. Fritts	[Seal]	515 Simms Bldg, Albuquerque NM	[Address]
Ruth C. Fritts	[Seal]	" " " " "	[Address]
W. H. Donley	[Seal]	2101 47 St. Lubbock Tex	[Address]
Nevella Donley	[Seal]	2601 47 St. Lubbock Tex	[Address]
Shelby J. Dugas	[Seal]	1038 Birch Lane Carlsbad N.M.	[Address]
Phyllis Jean Dugas	[Seal]	1038 Birch Lane Carlsbad, N.M.	[Address]

I, _____ certify that I am the _____ (Secretary, etc.) of the corporation named herein; that _____ who signed this agreement was then _____ (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____ [Corporate Seal]

Submitted w/ F.T. Memo. 2-20-58

KAROLTON KLASP—9 x 12
MADE BY
THE AMERICAN ENVELOPE CO.
WEST CARROLLTON, OHIO



LOCATION MAP

PLATE 9

D. M. Ferebee, Consulting Geologist

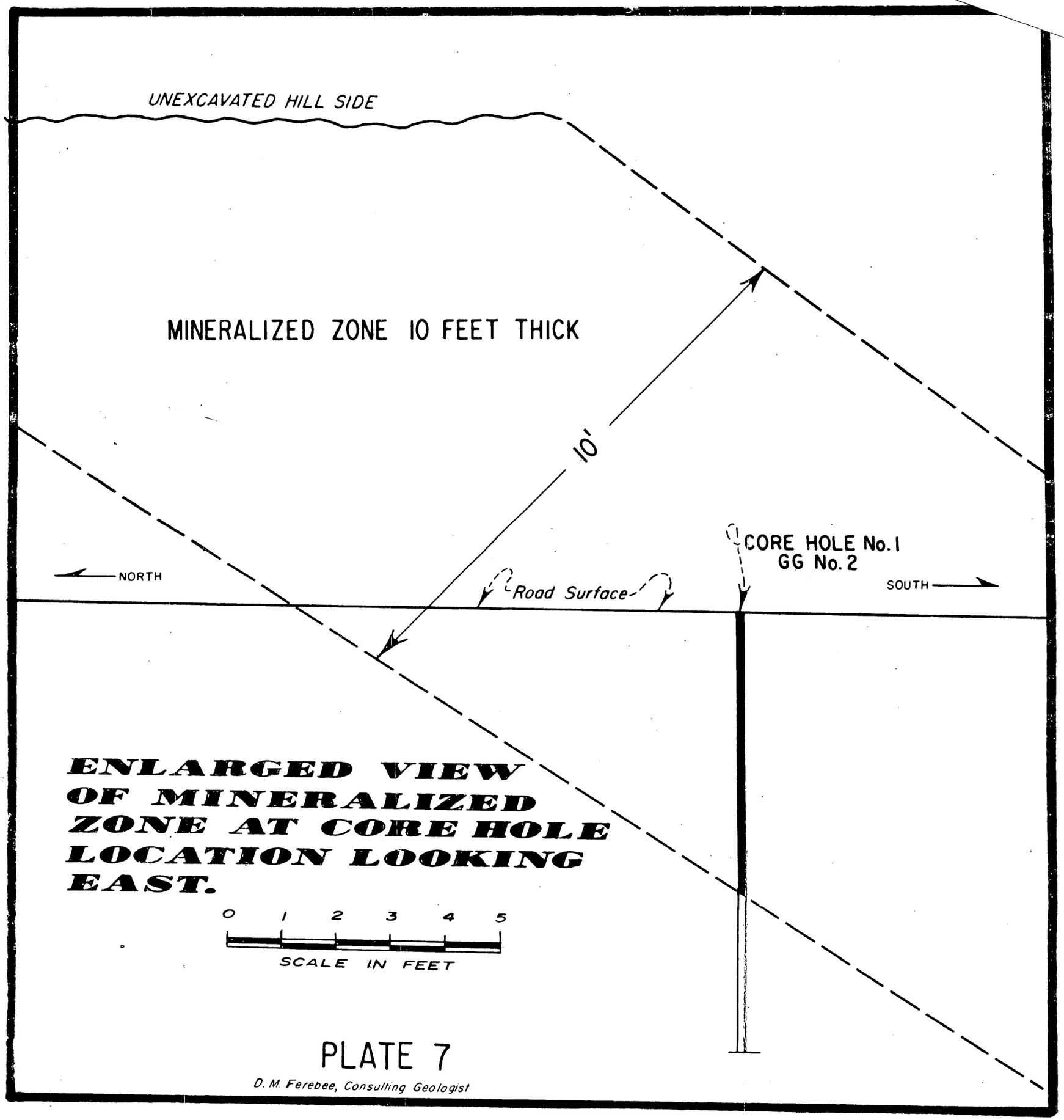
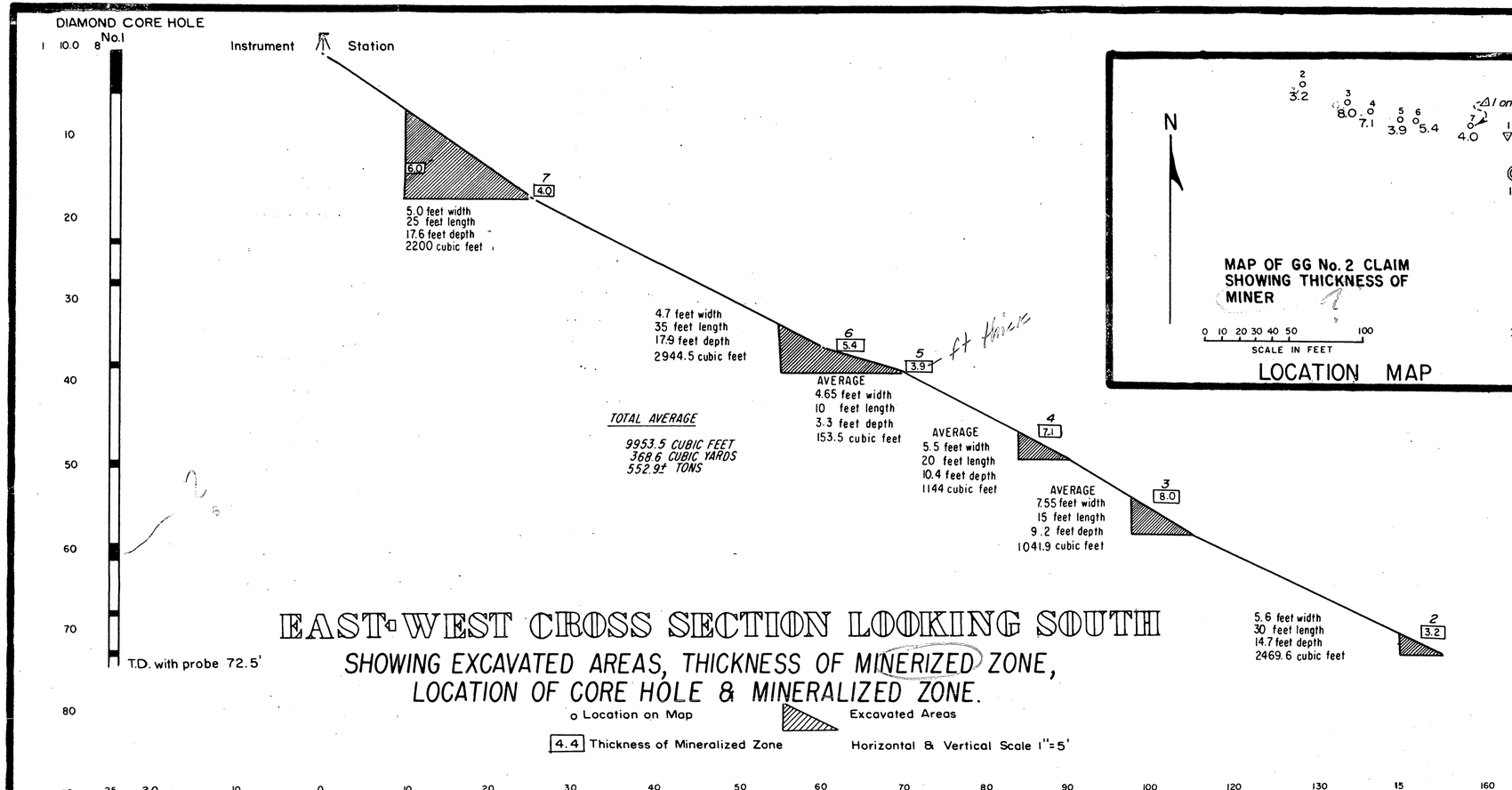
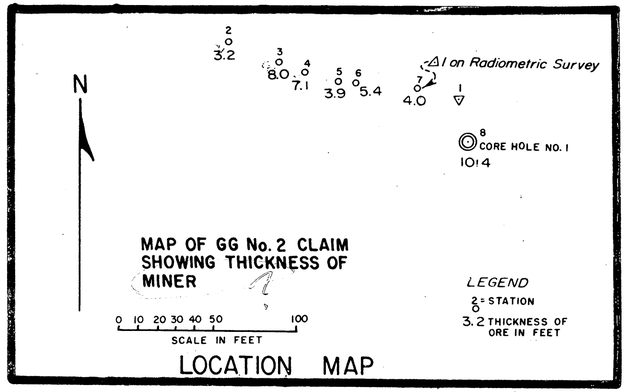
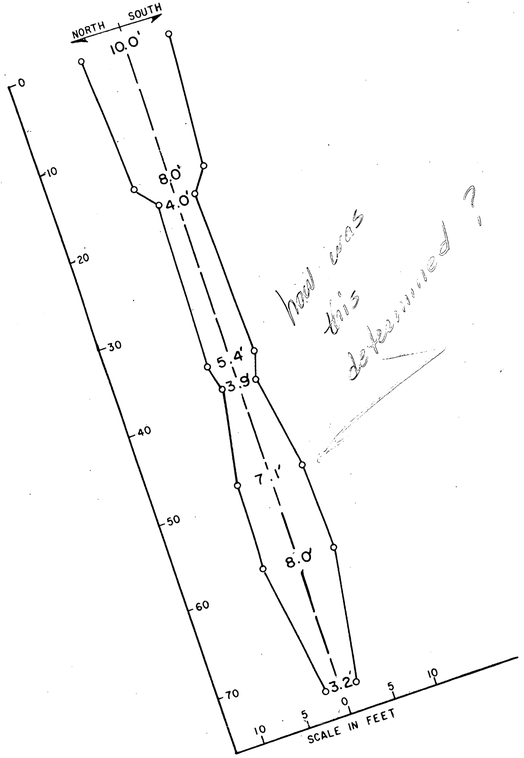


PLATE 7

D. M. Ferebee, Consulting Geologist



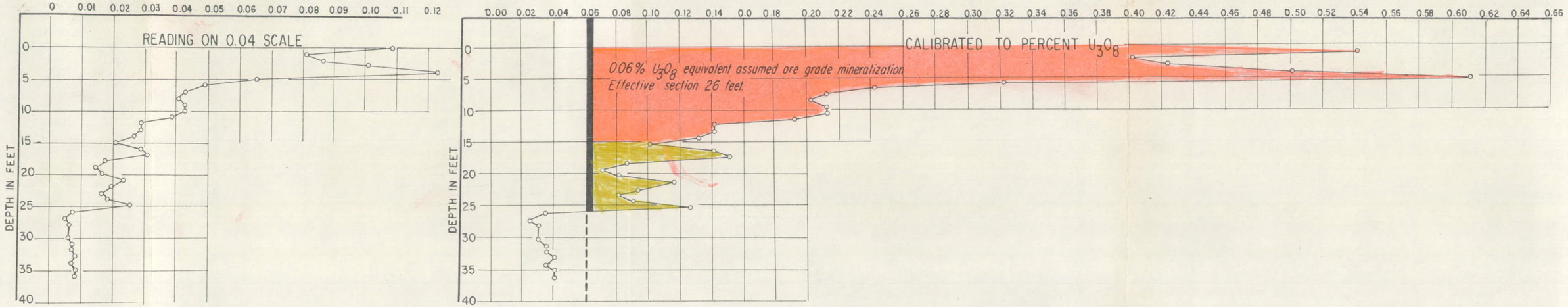




NORMAL CROSS SECTION VIEW
MINERALIZED ZONE LOOKING EAST
SHOWING ACTUAL THICKNESS

PLATE 6

D. M. Ferebee — Consulting Geologist

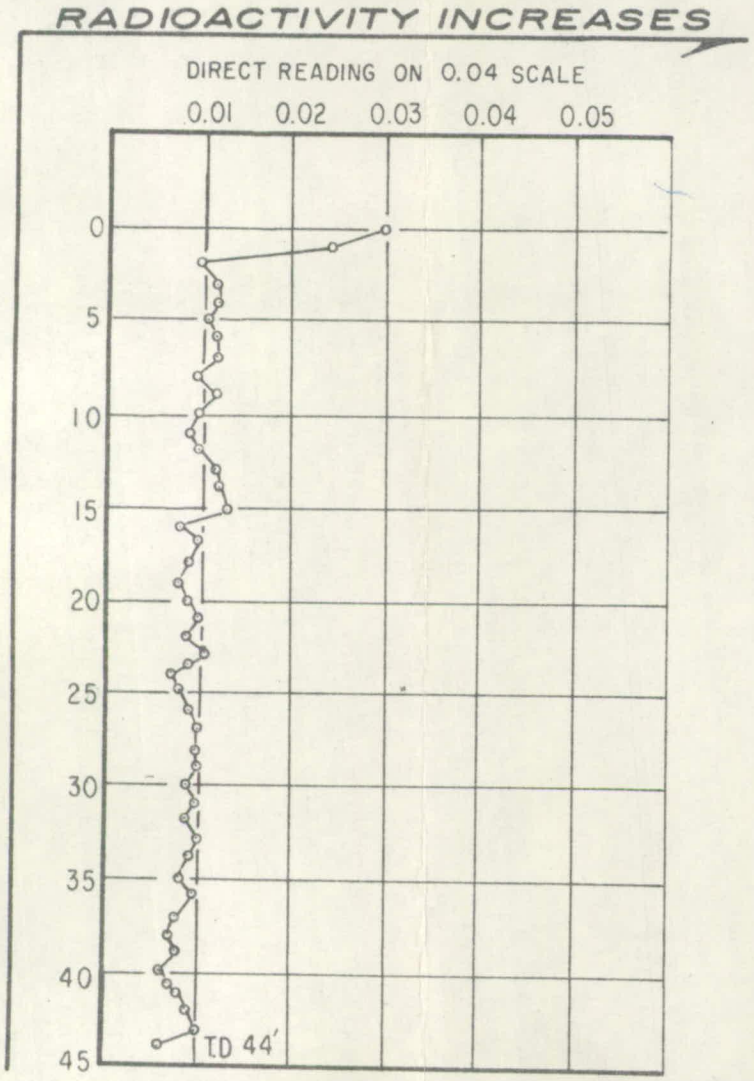


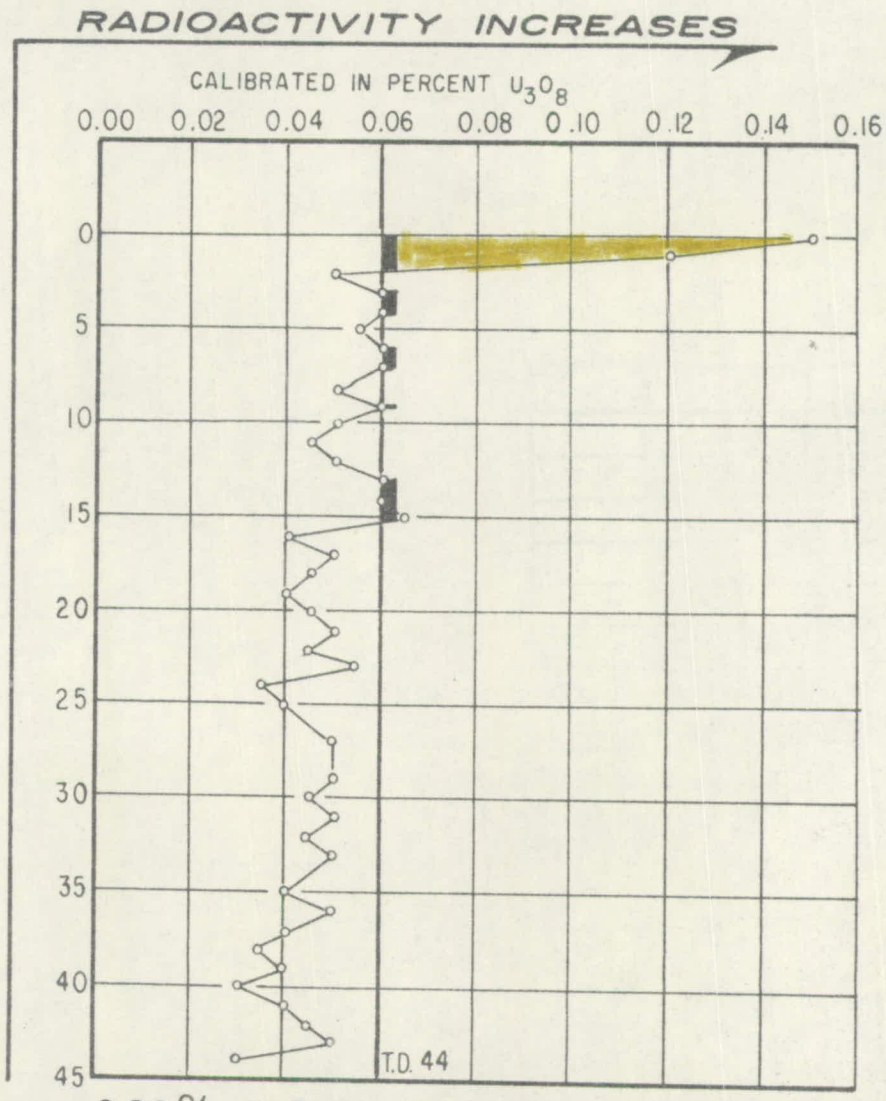
CORE HOLE No. 2

Pinie No. 8 Claim

PLATE 13

D. M. Ferebee, Consulting Geologist





0.06 % U_3O_8 equivalent assumed ore grade mineralization effective section 10 feet.

CORE HOLE No. 1
Pinie No. 8 Claim

PLATE 12

D. M. Ferebee, Consulting Geologist

CORE HOLE No. 1
GG No. 2 Claim

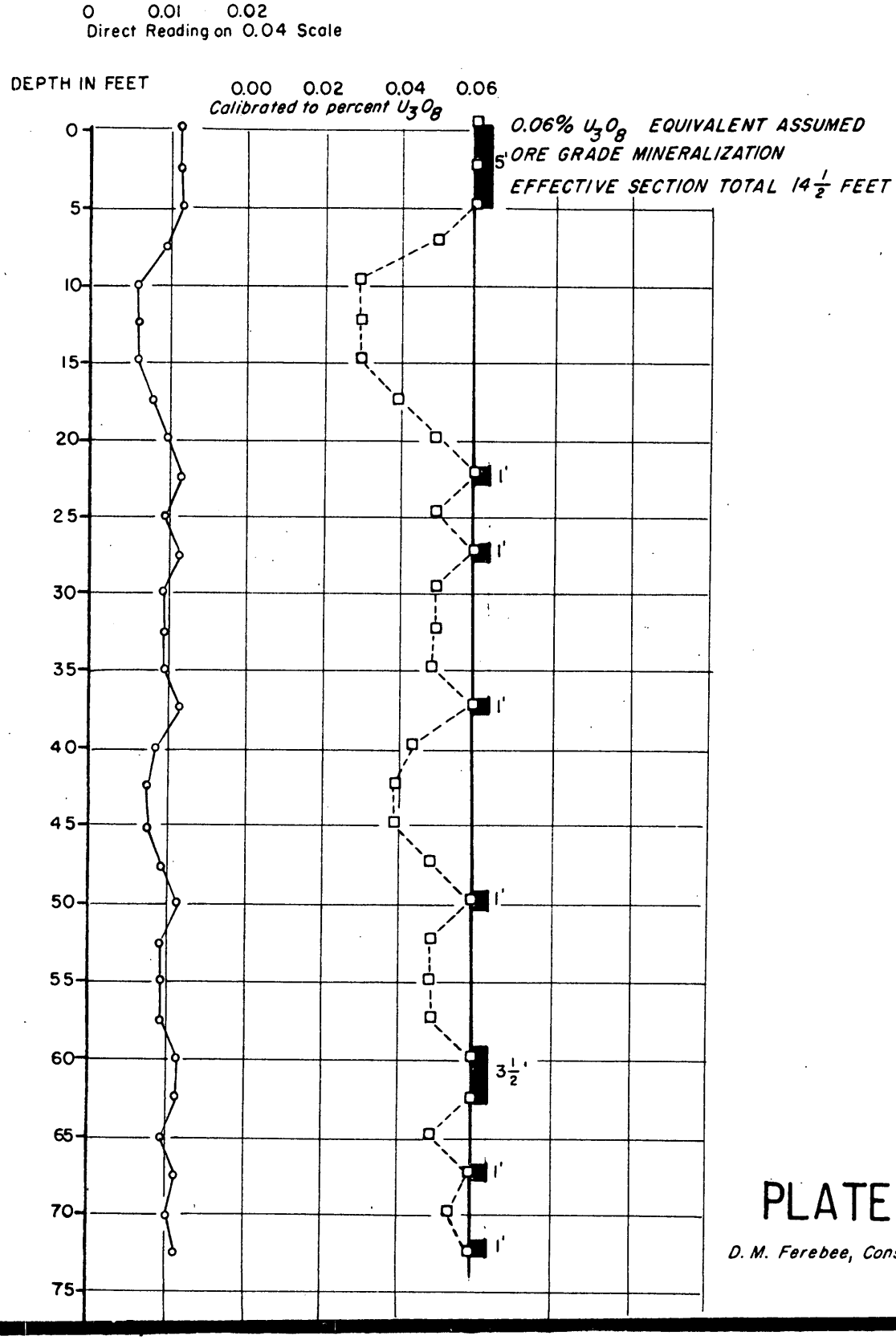


PLATE 8

D. M. Ferebee, Consulting Geologist

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

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DMEA
RECEIVED JUL 22 1957

DATE	INITIALS	CODE

July 18, 1957

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, ~~Region III~~

Subject: Application for DMEA Aid (Uranium-Thorium) Atomic Minerals Corporation (North, South, and East Groups) Lincoln County, New Mexico

Enclosed are the original and two copies of an application for DMEA aid in the exploration of three groups of mining claims. in Lincoln County, New Mexico.

The Applicant's estimated cost of the exploration project is $853,587.50.

One copy of the application is being retained in our file.

W. H. King

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

WSK
HMC Hmc

July 13, 1957

DMEA
DEPARTMENT OF THE INTERIOR
JUL 17 1957
REGION III
DENVER, COLORADO

Mr. E. H. Harshman
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Dear Mr. Harshman:

Enclosed are four copies of Application and accompanying papers for Aid in an Exploration Project, Pursuant to DMEA Order 1, Under the Defense Production Act of 1950, As Amended.

Yours very truly,

Lee Downey

Lee Downey
President

LD/av

Encls.

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DMEA
RECEIVED
DATE
CODE

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DMEA
DEPARTMENT OF THE INTERIOR
JUL 17 1957
REGION II
DENVER, COLORADO

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

Not to be filled in by applicant

Docket No. 4792
Metal or Mineral Uranium-Thorium
Date Received 7/22/57
Estimated Cost $853,587.50
Participation (Government %)

RECEIVED JUL 22 1957 D.M.E.A.

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: ATOMIC MINERALS CORPORATION, a New Mexico Corporation (n.s.l.), 101 Downey Building, 201 South Halagueno Street, Carlsbad, New Mexico. See attached data sheets.

(*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

(*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

(*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

(*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.

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

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

1. (a & b) ATOMIC MINERALS CORPORATION, a New Mexico Corporation (n.s.l.), 101 Downey Building, 201 South Halagueno Street, Carlsbad, New Mexico.

(c) Lee Downey - President, 101 Downey Building, Carlsbad, New Mexico.
A. J. Brandon - Vice-President, P.O. Box 987, Carlsbad, New Mexico.
R. Dale Harris, Secretary-Treasurer, 109½ North Canal, Carlsbad, New Mexico.
Wilbur E. Swenson - Trustee for Stockholders, Certified Public Accountant, 812 Tyler, Amarillo, Texas.
D. M. Ferebee - Consulting Geologist, 443 Gavilan N.W., Albuquerque, New Mexico.
W. T. Durant - Legal Counsel, 609 Davis Building, Dallas, Texas.
R. J. Hobby - Tax Attorney, 609 Davis Building, Dallas, Texas.

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JUL 22 1957
CODE

3. (a) See attached Geological Report Plates I, II, III and IV.

(b) None.

(c) Purchaser under contract. See attached Geological Report Envelope 3.

(d) See contract in attached Geological Report Envelope 3.

(e) None.

(f) See list of claims in attached Geological Report Envelope 3.

4. (a) No mining or exploration operations are active at this time. For previous history see attached Geological Report page 13. An examination may be made of the property at the convenience of the DMEA officials. D. M. Ferebee will accompany the examining party if so requested.

(b) There is no production from these claims at this time.

(c) See attached Geological Report pages 8-14, also Plates V, VIII and XI.

(d) See attached Geological Report pages 6-8.

(e) See attached Geological Report pages 6-8.

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

5. (a) Thorium and allied radioactive minerals.

(b) See attached Geological Report pages 16 and 17, plates VII, X, XIII.

(c) Work will start in 30 days and be completed within 12 months.

(d) See attached resume of personal and professional biographies.

6. See attached Geological Report pages 18-22.

(a) It is proposed that all work in connection with this proposed exploration program will be done by independent contractors, who will supply performance bonds and proof of adequate insurance satisfactory to the corporation, pages 20 and 21.

(b) See attached Geological Report page 18.

(c) See attached Geological Report pages 19, 20, 21. All work will be performed by independent contractors.

(d) See attached Geological Report pages 18-21, also Item 6. (a) above.

(e) None, all items will be on contract basis.

(f) It may prove advantageous to perform this work from a field camp oberated and paid for by the various individual contractors. No cost to DMEA or corporation.

(g) See attached Geological Report pages 18-22.

(h) See attached Geological Report pages 21-22.

7. (a) Yes.

(b) The individual contractors have elected to accept 25% of their bid price for services performed and materials furnished in Atomic Minerals Corporation Common Stock. On items not supplied by individual contractors money to cover the 25% of the corporation's liability will be furnished by the corporation.

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

EXECUTIVE

R. LEE DOWNEY

President - Carlsbad Mineral Corporation
President - Atomic Minerals Corporation
President - Westex Minerals Co., Inc.

Born Hugo, Colorado, 1915. Attended public school Hugo and Denver, Colorado. High school in Santa Rosa, New Mexico. Graduated from Pharmacy School and licensed in New Mexico 1939. Employed by R. C. Carrico Construction Co. as Cost Accountant & Supervisor on Miscellaneous Road, Bridge Building for 5 years. In Military Service until 1943. Entered retail pharmacy from 1943 to 1957. Now operating drug, real estate, and mineral holdings.

Married - 3 grandchildren.

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DATE	[illegible]	CODE

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

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DATE | CODE

EXECUTIVE

A. J. BRANDON

Director, Carlsbad Minerals Corporation
Vice-President, Atomic Minerals Corporation

Born Hardeman County, Texas, February 16, 1913. Public schools, Texas Technological College 1934-1935. Lydick Roofing Company, Lubbock, Texas, 1936-1942. U. S. Navy 18th Construction Battalion, July 1942, October 1945. Solomon Island Area. November 1945-May 1948 Hamilton Roofing Company, Roswell, New Mexico. 1948 to present Partner and Manager Hamilton Roofing Company, Carlsbad, New Mexico.

Married - 1 Child.

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

EXECUTIVE

R. DALE HARRIS

Vice-President of Carlsbad Mineral Corporation
Secretary-Treasurer of Atomic Minerals Corporation

Born 1923, Clovis, New Mexico. Attended public schools at Carlsbad, New Mexico. Attended Baylor University, Waco, Texas, 1941-1943. Attended Baylor University College of Dentistry, Dallas, Texas, 1943-1946. President of Honorary Dental Fraternity Xl Psi Phi, 1946. Active duty in U.S. Navy Dental Corps 1946-1948. Overseas duty with F.M.F. Wespac, China 1947-1948. Entered private practice of Dentistry in Carlsbad, New Mexico, 1949. Member of inactive staff of St. Francis Hospital and Carlsbad Memorial Hospital. Member of Board of Directors of Memorial Hospital.

Married, two children.

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

FIELD PERSONNEL

D. M. FEREBEE

General Supervisor

Consulting Geologist, 443 Gavilan Place N.W., Albuquerque, New Mexico.

Born Clarendon, Texas 1914. Public Schools Vernon, Texas. B.S. degree Texas Technological College, Lubbock, Texas, 1939, Geology Major, Civil Engineering Minor. Gulf Research Co. August 1939 to March 1941, seismograph crew and Gulf Production field geologist and sub-surface work in west and north Texas. March 1941 to July 1945, U.S. Navy, attached to Carribean Sea Frontier and Gulf Coast Commands; Meritorious Service award. July 1945 to June 1947, Development Geologist for The California Co., south Louisiana. July 1947 to August 1948, Geophysical Coordinator for The California Co., Rocky Mountain Region. September 1948 to March 1955, Geologist to Senior Geologist for Stanolind Oil & Gas Co. (now Pan American Petroleum Corporation); studies in Arizona, New Mexico, Colorado and Utah. 1952 to 1955, special studies on structure, stratigraphy and tectonics with special emphasis on Four Corners Region. Published "Ignacio Gas Field, La Plata County, Colorado," Geologic Record 1955. Member: American Association of Petroleum Geologists (1939); Four Corners Geological Society; Geological Society of America (1951) Sigma Gamma Epsilon, honorary geological fraternity. Listed in Who is Who in New Mexico. Officer of Lithlog, a well sample logging service in Albuquerque, New Mexico.

Married, three children.

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

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FIELD PERSONNEL

JACK D. SCHULZE

Field Supervisor

Consulting Geologist, P.O. Box 555, Winslow, Arizona.

Born 1923, Norton, Kansas. Public schools, Norton, Kansas. College: Fort Hays Kansas State College, Hays, Kansas 1940-1941; University of Oklahoma, B.S. degree in Geology, 1950, M.S. degree 1954; Master's Thesis, Pre-Dakota Geology of the Northern Half of the Canon City Embayment in Central Colorado. Army Specialist Training, parachutist, bridge construction, demolitions, member 82nd Airborne Division, sergeant of paratroops, 1943-1946. Employed Stanolind Oil & Gas Co. 1942-1954, with leaves of absence for army service and attending Oklahoma University. Stanolind district office, Albuquerque, New Mexico (now Pan American Petroleum Corp.) 1950-1954, experience in surface geologic mapping, well-sitting, subsurface methods. August 1954 to February 1956, Chief Geologist for New Mexico and Arizona Uranium Company, in charge of field operations on 104,000 acre lease in northern Arizona. February 1956 to present, Consulting Geologist.

Registered Professional Engineer in New Mexico and Arizona.

Married, four children.

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

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DATE | INITIALS | CODE

FIELD PERSONNEL

FREELAND H. STEVENS, JR.

Office Supervisor and control.

Born September 8, 1917 in Alexandria, Minnesota. Educated in Alexandria Public Schools. B.A. Degree Carleton College, Northfield, Minnesota majors in Geology and Geography 1939. Graduate study Carleton College 1940-41. Enlisted U.S. Marine Corps and served 6 years reserve. Ribbons include Pacific Theatre with battle stars, American Theatre, Japanese Occupation, Reserve and Victory Medal. Separated with rank of Major, USMCR.

Joined Stanolind Oil and Gas Company as geologist in research laboratory group, Tulsa, Oklahoma 1946. Advanced to Technical Group Leader, supervising both technical and professional grade employees in geological research. Transferred to Albuquerque, N.M. District Office as Subsurface Geologist. Promoted to Area Geologist supervising exploratory efforts, including the drilling of wildcat wells, budgeting exploratory program, coordinating geological and geophysical work, evaluating producing and non-producing properties, directing surface geological mapping and handling the personnel and personnel problems incumbent upon the various phases of geological work enumerated above. Resigned as Area Geologist from Pan American Petroleum Corp. (formerly Stanolind Oil and Gas Co.) July 1957 to become Consulting Geologist and an officer of Lithlog, a well sample logging service in Albuquerque, New Mexico.

Married, two children. Residence 829 Truman NE, Albuquerque, New Mexico. Member American Association Petroleum Geologists and Four Corners Geological Society.

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

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UNPATENTED LOAD MINING CLAIMS IN THE CAPITAN MOUNTAIN MINING DISTRICT OWNED AND CONTROLLED BY ATOMIC MINERALS CORPORATION AND FILED IN THE LINCOLN COUNTY COURT HOUSE, CARRIZOZO, NEW MEXICO.

	Location Notice	Book	Page
San Pedro	1	A-20	452
	2	"	453
	3	"	454
	4	"	455
	5	"	456
	6	"	457
	7	"	458
	8	"	459
Rocky	1	A-20	460
	2	"	461
	3	"	462
Nob Hill	1	A-20	184
	2	"	185
	3	"	186
Lee Mines	1	A-20	187
	2	"	188
	3	"	189
Lajdale	1	A-20	193
	2	"	194
	3	"	195
	4	"	196
	5	"	197
	6	"	198
	7	"	199
	8	"	200
	9	"	201
	10	"	202
	11	"	203
	12	"	204
	13	"	205
	14	"	206
Give Out	1	A-13	444
	2	"	445

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

	Location Notice	Book	Page
Abo 38 ✓	1	A-15	295
	2	"	296
	7	"	301
	8	"	302
	9	"	303
	10	"	304
	15	"	309
	19? 16	"	310
	20	"	314
	21	"	315
	22	"	316
	23	"	317
	24	"	318
	25	"	319
	26	"	320
	27	"	321
	28	"	322
	29	"	323
	30	"	324
	31	"	325
	32	"	326
	33	"	327
	34	"	328
	35	"	329
	36	"	330
	37	"	331
	38	"	332
	39	"	333
	40	"	334
	41	"	335
	42	"	336
	43	"	337
	44	"	338
	45	"	339
	46	"	340
	47	"	341
	48	"	342
	49	"	343
Hungry Hill	1 ✓	A-13	446
Lucky Strike	✓	A-13	447
Luckey	1 ✓	A-18	319
	2 ✓	"	320
	3 ✓	"	321

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

	Location Notice	Book	Page
Link	1	A-20	443
	2	"	444
	3	"	445
	4	"	446
	5	"	447
	6	"	448
	7	"	449
	8	"	450
	9	"	451
Monzo	1	A-15	124
	2	"	125
	3	"	126
	4	"	127
	5	"	128
Pinie	1	A-15	118
	7	"	119
	8	"	120
	9	"	121
	10	"	122
	11	"	123
Atom	1	A-14	47
	2	A-15	357
	3	A-14	41
	4	"	48
Little Joe		A-18	451
Paul		A-18	452
G.G.	1	A-18	209
	2	"	210
Topper	1	A-20	435
	2	"	436
	3	"	437
	4	"	438
	5	"	439
	6	"	440
Eagle	1	A-16	486
	2	"	487
	3	"	488
	4	"	489
	5	"	490

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

	Location Notice	Book	Page
Eagle	6	A-16	491
	7	"	493
	8	"	492
	9	A-18	120
	10	"	121
	11	A-20	429
	12	"	430
	13	"	431
	14	"	432
	15	"	433
	16	"	434

Total 126 claims

San Pedro 8
Rocky 2 & 3
~~Abo 19~~

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RECEIVED JUL 22 1957
DATE | INITIALS | ZONE

NET PROFITS CONTRACT

STATE OF NEW MEXICO
COUNTY OF EDDY

THIS AGREEMENT, made and entered into by and between LEE DOWNEY AND ASSOCIATES, hereinafter referred to as Party of the First Part, and ATOMIC MINERALS CORPORATION, hereinafter referred to as Party of the Second Part,

W I T N E S S E T H:

For and in consideration of One Dollar ($1.00) and other good and valuable considerations, the receipt and sufficiency of which is hereby acknowledged, party of the first part does hereby sell, grant, bargain, convey, assign, and set over unto party of the second part the entire interest sold, granted, bargained, conveyed, assigned, and set over unto party of the first part by Carlsbad Mineral Corporation under and by virtue of that certain instrument entitled Net Profits Contract and executed the 29th day of January, 1957, in and to the properties described in Exhibit "A" attached hereto, which exhibit and its description is herein incorporated by reference as fully as though it were completely set out herein; subject, however, to the following terms, conditions, and reservations:

I.

The interest conveyed constitutes a determinable fee and it shall terminate and revert to the party of the first part unless within 60 days from the date of execution of this instrument the party of the second part causes engineers and geologists to begin a study for the purpose of determining the extent of the minerals under the property; and if the determinable fee is not terminated by such failure, it shall nevertheless terminate and revert to the party of the first part unless the party of the second part begins construction of a

mill with a minimum capacity of at least 50 tons for the processing of such minerals, within one year from the execution of this instrument, or in lieu thereof starts building up a stockpile of ore in order to determine that the ore reserves are sufficient to pay for a mill. Any study work or construction done by party of the first part either heretofore or hereafter shall inure to the benefit of party of the second part.

II.

The properties transferred by this instrument are subject to a reserved overriding royalty measured by twenty-five percent (25%) of the net profits after royalties realized from the operation of the property, which overriding royalty was reserved by Carlsbad Mineral Corporation in the conveyance from it to Lee Downey and Associates, and this reserved overriding royalty is expressly excepted from the terms of this transfer and assignment. In addition, party of the first part reserves unto himself, his heirs and assigns, out of the properties herein conveyed and assigned to the party of the second part an overriding royalty measured by fifteen percent (15%) of the net profits (as hereinafter defined) realized by second party, his successors and assigns, from all minerals produced, saved, and sold from the properties herein assigned and conveyed to second party.

III.

The term net profits as used in this agreement shall mean the gross proceeds, excluding royalties but without excluding the overriding royalty of twenty-five percent (25%) of net profits reserved by Carlsbad Mineral Corporation or the overriding royalty of fifteen percent (15%) of net profits herein reserved by Lee Downey and Associates, and after all milling and processing has been completed, from the sale of all minerals produced, saved and sold from the premises herein assigned, less the following expenses: All mining and exploratory costs including core drilling, engineering and geological

costs; the expense of building and maintaining all roads necessary for the exploration and development of the property; the cost of constructing all mills and treatment processes necessary for the preparation for market of the minerals produced and saved from the property, or in lieu thereof such charge for depreciation as is allowable for income tax purposes; expenses incurred in connection with examining, perfecting, and defending title to the property conveyed including attorneys fees incurred in connection therewith; losses, damages or liabilities sustained or incurred in the operation of said property; any taxes upon the property, or upon the extraction of minerals from the property, or the milling or processing of such minerals, (excluding however any income taxes) premiums paid for workman's compensation insurance, public liability, fire, wind, tornado or other necessary insurance; and such reasonable charge for indirect overhead such as executive salaries, employees who do not devote full time to the project, office overhead which is not directly allocable to this project and travel expenses of officers; provided, however, that such charge may not exceed five percent of the gross income from the properties after the payment of royalties and is to be computed upon an annual basis.

IV.

First and second parties mutually agree that in the event second party fails to operate or produce these properties for any reason for a period of twelve (12) months, first party may serve notice in writing upon second party that if operation or production of the properties are not resumed within thirty (30) days from the giving of such notice, that first party will assume the management and operation of the properties. Should second party fail to resume operation or production of the properties within such thirty (30) day period, then at the expiration of such period first party may assume the operation or production of the property, and this contract shall become null and void.

V.

First party shall be entitled to receive his percentage of net profits at the end of any month whenever it shall appear at the end of such month that net profits have been realized by second party out of the production or other credits accruing to the account of the interest herein conveyed, taking into consideration all expenses theretofore incurred in connection with the interest herein conveyed and all accounts payable or receivable with regard thereto at the end of said month, and all payments of net profits theretofore made by second party to first party. In making the foregoing computations, deficits shall be carried over from month to month and the accumulated totals thereto applied against subsequent earnings before profits will be considered to have accrued. Payments of such net profits shall be made within twenty days after the end of any month in which net profits have been so realized.

VI.

The overriding royalty measured by fifteen percent (15%) of the net profits from the operation of the property which is retained under this instrument is owned by several persons as undivided owners, and each such owner is to be paid directly for his share of the net profits. The parties initially entitled to receive a share of the net profits and the address and percentage of participation of each are:

NAME	ADDRESS	PERCENTAGE
Lee Downey	Box 3, Carlsbad, N. M.	25.00%
Lee Downey, Trustee	" " "	5.00%
R. Dale Harris	109½ N. Canal, Carlsbad, N.M.	25.00%
A. J. Brandon	Box 987, Carlsbad, N. M.	25.00%
Wilbur E. Swenson	812 Tyler, Amarillo, Texas	10.00%
D. M. Ferebee	443 Gavilan, N.W., Albuquerque, N.M.	5.00%
W. T. Durant	609 Davis Bldg., Dallas, Tex.	3.25%
R. J. Hobby	609 Davis Bldg., Dallas, Tex.	1.75%

VII.

Second party shall keep an accurate record of all accounts hereunder, showing the costs and expenses incurred

and charges made and all receipts and credits received, which record shall be available at all reasonable times for the examination and inspection of first party or his duly authorized representatives. Within twenty days after the close of each calendar month, second party shall furnish to first party a statement of investment and expenses incurred and credits and receipts during such calendar month.

VIII.

That the second party does agree to do the annual assessment work as required by Federal mining law and such work to be completed and affidavit of such furnished on all claims transferred to second party by April 15th, 1958, and each subsequent year.

IX.

Second party shall have exclusive charge, control, and supervision of all operations of every kind to be conducted on said land for the development, production, treating, handling, and marketing of any minerals therefrom as well as the payment of rentals, taxes, and other charges which may arise or become due.

X.

It is understood that while the second party is operating the property, first party shall be held blameless of any liability incurred by party of the second part.

XI.

This contract and conveyance shall be effective as of the 21st day of June, 1957.

IN WITNESS WHEREOF, we hereunto set our hands and seals this the 21st day of June, 1957.

LEE DOWNEY AND ASSOCIATES

By Lee Downey
Lee Downey

ATOMIC MINERALS CORPORATION

By Lee Downey
Lee Downey, President

Attest:

R. Dale Harris
R. Dale Harris, Secretary
Atomic Minerals Corporation

STATE OF NEW MEXICO
COUNTY OF EDDY | ss.

Before me, the undersigned, a notary public in and for the said county and state, on this day personally appeared LEE DOWNEY, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged that he executed the same for Lee Downey and Associates for the purposes and considerations therein expressed; that he was authorized to act for himself and his associates, and that this is his own free act and deed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 21st day of June, 1957.

My Commission Expires:
May 24, 1961

Adele Vorenberg
Notary Public in and for
Eddy County, New Mexico

STATE OF NEW MEXICO
COUNTY OF EDDY | ss.

Before me, the undersigned authority, on this day personally appeared LEE DOWNEY, who, being by me first duly sworn, declared that he is the President of ATOMIC MINERALS CORPORATION; that he signed the foregoing document as President of the company, and that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 21st day of June, 1957.

My Commission Expires:
May 24, 1961

Adele Vorenberg
Notary Public in and for
Eddy County, New Mexico

EXHIBIT "A"

This Exhibit "A" referred to in Contract Agreement by and between Lee Downey and Associates and Atomic Minerals Corporation, covering assignment of properties held by Lee Downey and Associates, and which is incorporated by reference therein, is as follows, to-wit:

Federal Mining Claims recorded in Office of County Clerk, Lincoln County, New Mexico, as follows:

1 - Hungry Hill No. 1	subject to 5% overriding royalty
2 - Give Out No. 1 & 2	" " " " "
1 - Lucky Strike No. 1	" " " " "
3 - Nob Hill No. 1 - 3	" " " " "
7 - San Pedro Group No. 1 - 7	" " " " "
3 - Lee Mines No. 1 - 3	" " " " "
39 - ABO Claims No. 1 - 49 (excluding 3, 4, 5, 6, 11, 12, 13, 14, 17, 18. These dropped for lack of mineralization)	" " " " "
3 - Lucky No. 1 - 3	" " " " "
4 - Atom No. 1 - 4	" " " " "
1 - Rocky No. 1	" " " " "
5 - Monzo No. 1 - 5	" " " " "
6 - Finie No. 1, 7, 8, 9, 10 & 11	" " " " "

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

EXHIBIT A-1

This Exhibit A-1 shall be an amendment to Exhibit A as a separate additional property transfer and subject to all terms and conditions of Net Profits Contract dated June 21, 1957, by and between Lee Downey and Associates and Atomic Minerals Corporation. This Exhibit A-1 is to be considered a part of Exhibit A for all purposes, covering assignments of properties held by Lee Downey and Associates and which is incorporated by reference therein, as follows to-wit:

Federal Mining Claims recorded in the office of the County Clerk of Lincoln County, New Mexico, as follows:

Lajdale Nos. 1 thru 14 inclusive with no overriding royalty.

Link Nos. 1 thru 9 inclusive subject to no overriding royalty.

OFFICIAL FILE COPY
D M E A
RECEIVED JUL 22 1957
DATE | INITIALS | CODE

ATOMIC MINERALS CORPORATION
DOWNEY BUILDING — ROOM 1
DIAL TUXEDO 5-3900
CARLSBAD, NEW MEXICO

EXHIBIT A-2

This Exhibit A-2 shall be an amendment to Exhibit A as a separate additional property transfer and subject to all terms and conditions of Net Profits Contract dated June 21, 1957, by and between Lee Downey and Associates and Atomic Minerals Corporation. This Exhibit A-2 is to be considered a part of Exhibit A for all purposes, covering assignments of properties held by Lee Downey and Associates and which is incorporated by reference therein, as follows to-wit:

Federal Mining Claims recorded in the office of the County Clerk of Lincoln County, New Mexico, as follows:

Garrison & Leslie claims North side as follows:

Topper 1 thru 6 inclusive

G-G 1 and 2

Little Joe

Paul

Eagle 1 thru 16 inclusive

subject to assigned 5% overriding royalty.

July 12, 1957

FILE COPY
DMEA

Mr. Lee Downey
Post Office Box 3
Carlsbad, New Mexico

Dear Sir:

Attached is a brief geological and engineering evaluation of portions of the Capitan Mining District, Lincoln County, New Mexico.

During this survey an exploration budget was prepared to cover a detailed reconnaissance evaluation of the thorium and allied radioactive mineral possibilities of the area.

Respectfully submitted,

D. M. Ferebee

D.M. Ferebee

DMF/a
Enc.

CAPITAN MOUNTAIN

MINING DISTRICT

LINCOLN COUNTY

NEW MEXICO

I N D E X

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CAPITAN MOUNTAIN

MINING DISTRICT

LINCOLN COUNTY

NEW MEXICO

COPY
DMFA
AUG. 22 1957

The Capitan Mountain Mining District located in Townships 7, 8, and 9 South; Range 15, 16, and 17 East; New Mexico Principal Meridian, central Lincoln County, New Mexico is located on an east-west elongated laccolithic type acidic igneous intrusion.

The area has been spasmodically prospected for various minerals over the past seventy years.

PURPOSE:

The purpose of this report is to present the results of a brief geological and engineering investigation of the thorium and related radioactive minerals present on certain claims in the Capitan Mountains owned by Lee Downey and Associates.

As a result of this investigation a minimum budget was prepared for a detailed reconnaissance investigation of the area which would tend to prove the possibilities of a commercial thorium operation on the claims owned by Lee Downey and Associates. This budget is presented as part of this report for consideration.

LOCATION:

The claims examined during this investigation are located in three general groups as shown on the accompanying maps; Plates I, II, III, and IV.

The south group of claims is located in Sections 14, 15, 16, 21, 22, and 23; T 8S; R 15E unsurveyed. The north group of claims is located in Sections 1 and 2; T 7S; R 15E; Section 6; T 8S; R 15E unsurveyed and in Section 35; T 7S; R 15E. The east group of claims is located in Section 35; T 8S; R 17E; and Section 2; T 9S; R 17E.

ENCLOSURES:

1. Envelope No. 1 in back.
   - Plate I: Index map showing location of groups of claims.
   - Plate II: Claim map showing south group of claims.
   - Plate III: Claim map showing north group of claims.
   - Plate IV: Claim map showing east group of claims.
   - Plate V: South group of claims showing possible faults (or veins).
   - Plate VI: South group of claims showing radiometric anomolies.
   - Plate VII: South group of claims showing proposed trenching and drilling areas for exploration program.
   - Plate VIII: North group of claims showing possible faults (or veins).
   - Plate IX: North group of claims showing radiometric anomolies.
   - Plate X: North group of claims showing proposed trenching and drilling areas for exploration program.
   - Plate XI: East group of claims showing possible faults (or veins).

Plate XII: East group of claims showing radiometric anomolies.

Plate XIII: East group of claims showing proposed trenching and drilling areas for exploration program.

Plate XIV: Location map of north and south group of claims superimposed over topographic map.

Plate XV: Location map of east group of claims superimposed over topographic map.

2. Envelope No. 2 in back.

Figures 1 through 15: Supporting information showing assays, milling, and engineering data.

3. Envelope No. 3 in back.

Supporting data showing ownership of mineral interests.

EXPLANATION OF ENCLOSURES:

Plates V, VIII, and XI show the possible faults and/or veins which have been observed in the area. Very few of these faults are readily observable on the surface for any great distance. The lateral extension of these possible faults as indicated on these enclosures is for the most part inferred and projected through isolated outcrops.

The general east-west alignment of these faults is approximately parallel to the principal axis of the Capitan laccolith.

Plates VI, IX, and XII show some of the various radiometric anomolies as observed in the field. Because of the high background count it is impossible to obtain usable quantitative data from a surface radiometric survey. The anomolies shown are essentially peak areas within or along the anomolous trends. It will be noted that these anomolies have an alignment very similar to the fault (vein?) location map and no

doubt some association between the two exists. The various leads and prospect holes in the areas have been examined and the ones which are anomolous are noted.

Plates VII, X, and XIII show the general location of the trenching and drilling areas to be evaluated during the proposed exploration program. The sinuous attitude of the faults and the variation in vein widths makes it impossible to propose a definite drilling exploration program at this time.

Changes in the location of the trenches and the drill holes are inevitable and these changes, of necessity, must be made in the field as the work progresses.

Plates XIV and XV have been prepared to show the topography which will be encountered in the various groups of claims.

Figures 1 through 8 are some of the assays which have been made on samples from the various claims. From a study of these assay reports it is quite obvious that there has been a wide divergence in the method of obtaining the samples and the technique of assaying.

Figure No. 8 is an assay from samples taken by the writer in the cut on the Lajdale No. 2 Claim. These samples were taken in the following manner:

> Sample No. 1 was taken from the center of the vein along an eight foot face. The vein here exposed is some three feet in thickness.

Sample No. 2 was taken on a ten foot diagonal beginning at the bottom on the south east and extending upward and across the vein at about a 60° angle to end on the northwest side of the vein at the top of the diagonal. The samples extend approximately two feet on either side of the vein at both the top and bottom.

Sample No. 4 was taken on a diagonal like No. 2 in such a manner that the two diagonals along which the samples were taken made an X.

Sample No. 5 is a horizontal channel sample taken across the vein and extending approximately two feet on either side of the vein.

It is thought that by confining the sampling to the vein itself an enrichment in excess of 1% thorium oxide is indicated from this prospect. The uranium content from this prospect is too low for present commercial interest.

Figure No. 9 is a spectrographic analysis supported by a chemical assay of the uranium content of the sample submitted. The rare earth association with the radioactive material may prove to be of commercial importance at a deeper depth in the mineralized zones.

Figures 10, 11, 12, and 13 are supporting data on samples from the area collected and analyzed during various previous investigations of the area.

Figures 14 and 15 show the engineering data on the experimental milling of some of the ores from the district done by Carpco Engineering Company.

DISCUSSION:

GENERAL

Topography:
The elevation of the claims varies from 7000 to 9000 feet.

The topography is steep and rugged with narrow V shaped valleys normal to the principal axis of the intrusion. Refer to Plates XIV and XV for location.

Water:
No perennial streams are present in the area.

Some perennial springs which have been developed for stock water and limited domestic use are present along the flanks of the intrusion. There is adequate water in the area for an exploration camp, but water will need to be developed for a permanent type camp.

It is thought sufficient ground water can be developed to supply a permanent mining camp of some fifty to sixty families.

Transportation:
The nearest railhead to the district is located at Carrizozo, New Mexico some thirty miles to the west.

Carrizozo is served by the Southern Pacific Railroad which has adequate trackage for any type of loading facilities.

U.S. Highway 380, which is a paved all weather road, is located some eight miles south of the district.

The access roads into the district are graded, but rocky and rough.

Power and Communications:
The area is served by 220 volt three phase 60 cycle REA lines which has sufficient capacity and could be extended to serve an exploration camp.

For a permanent camp and for milling purposes the existing REA Power Line capacity will need to be increased from transformer station in Capitan, N.M. some eight miles to the south of the district.

The general area is served by the Bell Telephone System with offices in Roswell, New Mexico. Sufficient telephone facilities exist for an exploration camp with a minimum of extra lines.

The topography of the area lends itself to the establishment of a limited range FM radio communication system with a mountain top base station.

Culture:
The district lies wholly within the Lincoln National Forest. The area is devoted to forestry and limited cattle and sheep grazing.

Source of Supply:
General supply centers are located at Albuquerque, N.M., some 200 miles to the north and west of the area. Also at El Paso, Texas, some 200 miles to the south and west.

Limited supplies are obtainable in Roswell, N.M., some 80 miles to the east.

Man Power:
There is an excess of labor in the common and semi-skilled classes in the immediate area. It will be necessary to import labor of the skilled and technical classes.

Maps:
The claims were surveyed by plane table and alidade and tied into established survey corners. The located GLO corners and claim boundaries are shown on the maps presented. (Plates I, II, III, and IV).

By using resection and triangulation it is thought that the accuracy of the maps presented has been held to a ratio of less than 1 in 75.

GEOLOGICAL SETTING

Tectonics and History:
It is possible to explain the complex structural patterns of folding and faulting such as those observed in the immediate area of the Capitan Mountains by means of low angle thrusting either of tectonic or of gravity or decollement origin. The folds which lap up on the flanks of the Capitan Mountain Laccolith and the accompanying intricate pattern of N 20° E

faulting and subsuquent dike intrusion may be of decollement thrust origin.

Assuming the laccoliths of the general area were intruded in post Cub Mountain (Lower Tertiary) time, lateral rhyolitic extensions of these intrusions, particularly from the Carrizozo Mountain pine tree type intrusion, extended far to the east as extrusive sills and rare dikes in the rocks of Mancos and Mesa Verde Age. It appears that the intrusive horizons from the Capitan Mountain laccolith was at or near the contact of the San Andres (Permian) limestone with the overlying gypsiferous Bernal Formation (Triassic).

Apparently the thick pile of sedimentary section ranging in age from Permian to Lower Tertiary were essentially undisturbed prior to the intrusion of the laccoliths. The area of investigation is a part of the Great Plains province and unaffected by Laramide orogeny. Some erosion in post Upper Cretaceous Time resulting from slight folding and faulting produced only a slight unconformity at the base of the Cub Mountain Formation. The thickness of the Cub Mountain Formation probably exceeded 2500 feet. In post Cub Mountain time the laccolithic intrusions caused some doming of the sediments, especially in the Vera Cruz, Carrizozo, and possibly the Patos Mountains. Doming of the rocks above and subsidence of the rocks below the main intrusion horizon is indicated in these mountains. Elsewhere in the area the sediments were essentially horizontal.

By assuming a lower Miocene age (post Cub Mountain) of the central intrusions then the structural pattern as is now

present in the area is later, and penecontemporaneous with the great period of intrusion of dioritic masses into the Church Mountain, Nogal Peak, and White Mountain Areas; and the outpouring of the intermediate agglomerates and laves which comprise the main crest of the range and fill the synclinal basin to the south of the Capitan Mountains.

It is probable that the upper Miocene and later intrusions caused a regional arch in the area of sufficient relief that the superadjacent sedimentary pile slid off toward the east. The plane of least resistance for this slip would possibly be the Bernal Gypsum of Lower Triassic Age. The anomalous east-west Capitan Mountain Laccolith acted as a resistant buttress to this sliding so that the sediments lapped around it, and on the southern flank were displaced against it. A series of east-north easterly trending folds were formed on the south side of the mountains with correlative east-south easterly folds on the north side of the mountains. These folds are restricted to the crumpled decollement plate whose horizontal displacement exceeded four miles.

The multitude of tension faults produced in the sliding plate then became zones of weakness for the dike swarm intrusions from still active subjacent magmas.

As the magma chambers became exhausted or as isostatic adjustment proceeded the area of the White Mountains were gradually sagged to the present synclinal structural pattern of the range. This most recent subsidence ended the movement of the decollement plate as the previously prevailing easterly dips were reversed.

The displacement along the Hondo River known as the Fort Stanton Fault with 2000 feet or more vertical displacement at the south base of the Capitan Mountain Laccolith, and the structural saddle north of the town of Capitan are the outcrops in this area of the decollement thrust plate.

Capitan Mountains:
The area of this report is confined to the Capitan Mountains Laccolith. This is an east-west elongated igneous mass composed principally of alaskite.

The vertical expression of the intrusion approaches 4000 feet,

No explanation is offered for the east-west elongation of this igneous mass which is normal to the other intrusive, structural, and tectonic features in the immediate area.

The steep dip of the sedimentary section along the south flank of the intrusion is partially explained by the previously proposed thrust fault.

Mineralization:
The thorium and allied radioactive mineralization observed to date in the area is confined to east-west elongated fault and fracture zones. For the most part the fault appears to have reverse or thrust movement with an indeterminate vertical displacement. The accompanying shatter zones are extensive which would indicate a vertical movement along the faults of several tens of feet. The necessary compressive forces for faulting an igneous mass such as this could easily be furnished by the movement of the previously mentioned decollement

plate which post dated the principal intrusion. The faulting and shattering of the crust of the laccolith would have afforded passage for the underlying gases and liquids confined in the not yet solidified central core of the laccolith.

It is possible that it was these gases and liquids which were the source of the present mineralization in the Capitan Mountains.

The observable mineralized fault zones or veins vary in thickness from six inches to three feet thick at the surface.

Chemical assays from the area indicate a thorium content of as high as 1.8% however, from a radiometric determination it is probable that for the most part the ore will vary between 0.5 and 1.5% thorium oxide. Practically all of the sampled zones carry a trace of uranium oxide.

The only definitely identified thorium mineral from the area is Allanite (Orthite), however, other amophorous thorium bearing minerals are present, but as yet unidentified.

It is possible that the shatter zones may increase in size with depth and that the mineralization may increase in richness with depth. The deepest cut in the area to date approached twenty-three feet and no definite conclusion can be drawn from observation made in this limited exposure.

The thorium mineralization occurs as a filling in the fractures of the shatter zones and in the accompanying vuggular porosity as well as a coating on the host rocks. In many

cases along the mineralized zones the host rock is stained red some three to five feet on each side of the faulted and fractured zone.

EXPLORATION TO DATE:

With the exception of the discovery holes dug on the various claims the deeper exploration done to date has been confined to three very limited trenches and three core holes as shown on the accompanying map. (Plates Nos. VI, IX, and XII).

The trenching done on Pinie 8, Monzo 2, and Lajdale No. 2 claims substantiated the presence of the thorium mineralization along shatter zones associated with faulting.

In order to obtain cost figures for estimating the cost of core drilling, three holes were drilled as shown on Plates Nos. VI, IX, and XII. No attempt was made to select mineralized zones for the experimental work, but it is thought that these holes penetrated typical sections of the rock to be drilled in the area.

MINING AND MILLING:

Apparently few, if any, problems in the mining will be encountered that are unique to the area. The steep topography will lend itself to undercutting and stoping along the veins and faults. For the most part surface trenching operations are indicated at the inception of any mining operation in the area.

The shortage of water in the area precludes any type of wet process concentrator or milling process in the treatment of the thorium ores at this time. Carpco Engineering Company ran some typical samples through dry magnetic type separators which operated at some 56% efficiency and resulted in a concentration ratio of 10 to 18.5 to 1. This would indicate that ore averaging 0.8 to 1.0% thorium oxide can be successfully upgraded to a commercial product by the Carpco method.

Also, the Carpco Engineering tests indicated that the Capitan Mountain ores were amenable to magnetic type concentration.

CONCLUSIONS:

The Capitan Mountains are a mid-Tertiary acidic laccolithic type intrusion elongated in an east-west direction. Shortly after intrusion and solidification of the outher shell the laccolith was subjected to rather large and prolonged compressional forces which caused reverse faults in the solidified crust of the laccolith. The underlying gases and liquids in the magma chamber were released through these faults and mineralized the fault and shatter zones.

A richer and more varied suite of minerals probably exists with depth along the fault zones, however, this hypothesis was not proved during this investigation.

From the enclosed supporting data a practical dry concentrator type mill is obtainable from Carpco Engineering Company.

RECOMMENDATIONS:

It is recommended that a minimum exploration program be undertaken in the area in order to attempt to determine the presence of thorium mineralization of such quality and quantity to indicate whether or not a commercial operation is possible on the claims examined during this investigation.

PROPOSED EXPLORATION PROGRAM:

The relatively low grade of the ore observed to date in the area plus the necessity of using a dry concentrating process for upgrading this ore necessitates a large indicated tonnage of mineable ore to make the Capitan Mining District a commercial operation.

A minimum exploration program is herewith proposed to indicate the presence of commercial tonnage of thorium bearing minerals. For the purposes of this report it is assumed that the smallest commercial dry concentrator type mill would have a capacity of two hundred tons per day and cost approximately $500,000 to construct. This then would necessitate an ore reserve of some 500,000 tons of ore assaying 1% or higher thorium oxide. It is with this minimum limit set that the proposed exploration program is designed.

It was found by experimental drilling that the drilling costs are exceptionally high in the area and the drilling conditions in the various locations are unpredictable. In order to take advantage of the variable drilling conditions an hourly rate for drilling is proposed. This hourly rate includes equipment, labor, bits, and circulation material.

In order to determine the attitude of the faults and/or veins it is proposed that a series of bulldozer trenches be cut along the indicated zones of mineralization to determine the attitude and thickness of the veins. It is thought that more information can be gained from this method of exploration than from wide spaced core drill holes.

The trenches will be further explored by critically located core holes in the trenches and cross cuts to an additional depth of fifty to one hundred feet.

The trenching and drilling program as indicated on Plates Nos. VII, X, and XIII is a minimum proposal, but is not a firm proposal as to location.

The location and extent of the trenching and drilling programs will be dictated by field conditions and day to day operation.

In preparing the enclosed estimate it is assumed that all items of materials, equipment, and personnel will be furnished by independent contractors. These contractors will be required to furnish a certificate of comprehensive insurance coverage satisfactory to the corporation.

SUPERVISION, ENGINEERING, AND GEOLOGICAL

General Supervisor		
300 days @ $150.00 per day	45,000	
Field Supervisor		
300 days @ $100.00 per day	30,000	
Office Supervisor and Control		
300 days @ $100.00 per day	30,000	
TOTAL SUPERVISION		$105,000
Miscellaneous		
Accounting and Fiscal Control	16,000	
Field Geologist		
12 months @ $600.00 per mo.	7,200	
Draftsman		
1000 hours @ $4.00 per hour	4,000	
Casual Labor		
Rodmen, Chainmen, Secretarial — Total 3500 hours @ $1.25	4,375	
TOTAL MISC. LABOR		31,575
TOTAL ENGINEERING AND GEOLOGICAL		$136,575

MISCELLANEOUS EXPENSE

Insurance	
General Liability	$ 1,000
Mileage	
3 each four wheel drive field cars and/or personnel carriers 1500 miles per month for 12 months Total 54,000 miles @ 0.25¢ per mile	13,500
2 each automobiles for field use and general supervision 2500 miles per mo. for 12 months Total 60,000 miles @ 0.12¢ per mile	7,200
1 each automobile for field use and miscellaneous control 1500 miles per month for 10 months Total 15,000 miles @ 0.12¢ per mile	1,800
Personal Expense	
1000 man days @ $10.00 per day	10,000
Telephone and Telegraph	
$100 per month for 12 months	1,200
Assaying	
1000 Chemical @ $15.00	15,000
1500 Spectographic @ $5.00	7,500
4000 Radiometric @ $1.00	4,000
TOTAL MISCELLANEOUS EXPENSE	$61,200

EXPLORATION DRILLING

Drilling to include all equipment, personnel, bits, circulation material and insurance. Equipment to consist of Failing 1500 or equivalent drill, two stage 310 air compressor, 4¾" or larger tri-cone rock bits, diamond core bit and barrel, two drill collars.

Estimated cost	$70.00 per hour	
Estimated footage	32,000	
Estimated hours	3000 @ $70.00 per hr.	$210,000

BULLDOZING

Bulldozing bid to include two Caterpillar D-7 tractors or equivalent; one equipped with 12' hydraulic controlled angle blade and one equipped with 10' straight hydraulic controlled blade; one 18 cubic yard capacity rubber mounted scraper. Estimate includes all equipment, fuel, personnel, blades, and insurance.

Estimated cost	$22.50 per hour	
Estimated yardage	50,000 cubic yards	
Estimated hours	6000 @ $22.50 per hr. each	$135,000
Estimated cost per yard	$2.70	

BLAST HOLE DRILLING

Deep drilling over 5 feet in depth includes wagon drill, air compressor and all bits, personnel, insurance, etc.

Estimated cost	2000 hrs. @ $35.00 per hr.	$70,000

Shallow drilling up to five feet in depth includes drill, bits, personnel, insurance, etc.

Estimated cost	4000 hrs. @ $7.00 per hr.	$28,000
	Total Blast Hole Drilling	$98,000

Estimated cost per yard $1.96

DYNAMITE

Estimate includes all powder, fuses, caps, personnel, storage and transportation.

Estimated cost		
200 tons 40% Gel @ $494.00 per ton		$98,800
5.00 electric caps @ $535.00 per 1000		2,675
	Total Blasting	$101,475

Estimated cost per yard $2.03

15% for unforseen contingencies not covered by estimate	$111,337.50

RECAPITULATION

Supervision, Engineering, Geological and Accounting	$136,575.00
Miscellaneous Expenses	61,200.00
Exploration Drilling	210,000.00
Bulldozing	135,000.00
Blast Hole Drilling	98,000.00
Dynamite	101,475.00
Unforseen Contingencies-15%	111,337.50
TOTAL	$853,587.50

Fig. 1

A. J. ROWLAND

Laboratory at 105 S. Santa Fe St.

Since 1898

THE CUSTOM ASSAY OFFICE

P. O. Box 811

El Paso, Texas

NAME W. H. Donley 7-23-54

LOT	GOLD OZS. PER TON	SILVER OZS. PER TON	LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	U308	Th.	V.	
						4.80	.06	tr.	
	Selected								
	sample								

Charges $ 12.00

CUSTOM ASSAY OFFICE

ORR

A. J. HOWLAND

Fig. 2

Laboratory at 105 S. Santa Fe St.

Since 1898

THE CUSTOM ASSAY OFFICE

P. O. Box 811

El Paso, Texas

NAME Lee Downey 8-4-54

LOT	GOLD OZS. PER TON	SILVER OZ PER TON	LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	U308			
						.075			
	Hungry Hill Claim								
	Random Sample								

CUSTOM ASSAY OFFICE

Charges $ $5.00

Fig. 3

A. J. ROWLAND

Laboratory at 105 S. Santa Fe St.

Since 1898

THE CUSTOM ASSAY OFFICE

P. O. Box 811

El Paso, Texas

NAME Lee Downey 10-26-54

LOT	GOLD OZS. PER TON	SILVER OZS. PER TON	LEAD PER CENT	COPPER PER CENT	~~ZINC PER CENT~~ Fe	U308	CaO	S102	
# 1						3.85			
# 2	.01	.5	.3	0	4.7	3.5	3.9	86.0	
	Random Sample								

From Mount Spring #1 & Spring #8

CUSTOM ASSAY OFFICE

Charges $ 15.00

Fig. 4

A. J. ROWLAND

Laboratory at 105 S. Santa Fe St.

Since 1898

THE CUSTOM ASSAY OFFICE

P. O. Box 811

El Paso, Texas

NAME Lee Downey 11-3-54

LOT	GOLD OZS. PER TON	SILVER OZS. PER TON	LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	U308	Fe	CaO	SiO2
# 3						2.0			
# 4	.005	.12	.3	.05		2.6	2.5	3.6	82.0
		Lee Mines Group							
		Channel Sample Assessment bale							

Charges $ 15.00

CUSTOM ASSAY OFFICE

AJR

®

A. J. ROWLAND

Laboratory at 105 S. Santa Fe St.

Since 1898

Fig. 5

THE CUSTOM ASSAY OFFICE

P. O. Box 811

El Paso, Texas

NAME Lee Downey

12-22-54

LOT	GOLD OZS. PER TON	SILVER OZS. PER TON	LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	U308			ThO2
						.37	Chemical		
						.21	Radiometric		.60
	Corrected assay certificate						Map		
	Assment hole						No 80		
	Grooved Channel Sample						Two		

CUSTOM ASSAY OFFICE

Charges $ 12.00

AJR

PHONE 6-5461

Fig. 6

MARTIN AND CARLISLE CHEMICAL LABORATORY, INC.

ANALYTICAL - CONSULTING - COMPOUNDING

719 SAN MATEO BLVD. NE

ALBUQUERQUE, NEW MEXICO

ASSAY REPORT

NO SAMPLE HELD OVER 90 DAYS

Lee Downey
P.O. Box 3 Carlsbad
New Mexico

Ralph Boone
1116 Davis-Clovis
New Mexico

DATE December 22, 1954

FOLDER I

NO. A- A-2031

DESCRIPTION OF SAMPLE	GOLD OZ.	SILVER OZ.	COPPER %	LEAD %	U_3O_8 %	ThO_2 %	V_2O_5 %	%
Sample No. 1					0.105%	0.86%	Nil	
Channel sample								

RECEIVED JUL 22 1957 DMEA

Mo 30 #1

CHARGES $22.95

CHEMIST

Fig. 7

A. J. ROWLAND

Laboratory at 105 S. Santa Fe St.

Since 1898

THE CUSTOM ASSAY OFFICE

P. O. Box 811

El Paso, Texas

NAME Lee Downey 3-26-55

LOT	GOLD OZS. PER TON	SILVER OZS. PER TON	LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	U308	Th02		
Red rock						.135	.32		
Yellow rock						.135	.35		
		Pine & claim							
		Face of Assement Hole							
		Channel Sample.							

CUSTOM ASSAY OFFICE

Charges $ None

®

2114 CURTIS STREET

TELEPHONE MAin 3-1852

Fig. 8

[redacted]

CHEMISTS • ASSAYERS • ENGINEERS

DENVER 5, COLORADO

RECEIVED JUL 22 1957 D.M.E.A.

Folio 6871

Date Aug. 17, 1956.

D. M. Ferebee,
443 Favilan Plaxce N. W.
Albuquerque, New Mexico.

We hereby Certify, that the samples assayed for you gave the following results:

DESCRIPTION	URANIUM OXIDE U_3O_8	VANADIUM PENTOXIDE V_2O_5	LIME $CaCO_3$	RADIOMETRIC EQUIVALENT eU	THORIUM OXIDE ThO_2	TOTAL RARE EARTHS	COMBINED COLUMBIUM TANTALUM OXIDES
#1-	0.011%				1.81%		
#2-	0.007%				0.34%		
#4-	0.011%				0.31%		
#5-Channel	0.009%				0.32%		

#5-Crystal and #6 will be reported either Monday or Tuesday. COP

PLEASE PAY FROM THIS INVOICE AS NO OTHER STATEMENT WILL BE MAILED. THANK YOU.

Charge $ 60.00

CHARLES O. PARKER & CO.
CHEMISTS, ASSAYERS and ENGINEERS

Fig 9-A

LABORATORY CERTIFICATE

Keldon research corporation

LUdlow 3-4044

MAIL: BOX 2555 TERMINAL ANNEX, LOS ANGELES 54, CALIF. • LABORATORY: 2565 BELGRAVE AVE., HUNTINGTON PARK, CALIF.

Date August 7,1956

Submitted By Name Mr. Lee Downey

Reference L.N. 13359-1

Address P.O. Box 3

Marking: #1 Pinie 8

City Carlsbad, State New Mexico

ELEMENT	NOT LESS THAN	NOT MORE THAN	ELEMENT	NOT LESS THAN	NOT MORE THAN
Silicon	5.0 %	50.0 %	Molybdenum	0.003 %	0.03 %
Aluminum	3.0	30.0	Vanadium	0.005	0.05
Magnesium	0.3	3.0	Lithium		
Iron	2.0	20.0	Yttrium	0.05	0.5
Calcium	0.3	3.0	Cadmium		
Sodium	0.5	5.0	Copper	0.003	0.03
Potassium	0.3	3.0	Silver	0.001	0.01
Tellurium			Tantalum		
Boron			Zinc	0.01	0.1
Phosphorus			Titanium	0.1	1.0
Antimony			Zirconium	0.1	1.0
Gold			Palladium		
Lead		0.03	Rhodium		
Tin		0.01	Ruthenium		
Chromium			Cobalt		
Arsenic			Lanthanum	0.01	0.1
Manganese	0.03	0.3	Cerium	0.01	0.1
Gallium	0.001	0.01	Strontium		
Germanium			Tungsten		
Platinum			Mercury		
Bismuth	0.003	0.03	Indium		
Columbium			Barium		
Nickel	0.005	0.05	Uranium	Reported Separately	0.20 %
Beryllium			Thorium	Reported Separately	1.04 %

1. Percentage ranges represent the probable concentrations of the elements found to be present.
2. Fire assay is the method of choice for Gold and Platinum group elements; general spectrographic techniques are limited to ore concentration greater than one or two ounces per ton.
3. Spectrochemical analysis is only one of several factors required for the complete evaluation of an ore sample; it should be regarded as a "Coarse Screen" used to estimate the advisability of additional study. Economic and mineralogical considerations are also necessary for a true appraisal of the specimen.
4. Special attention:

Respectfully submitted,

T.J. Rollins

Keldon Research Corporation

TJR/t-3

THE USE OF THIS REPORT FOR ADVERTISING PURPOSES MUST RECEIVE OUR WRITTEN APPROVAL

Fig 9-B

LABORATORY CERTIFICATE

Kelton

research corporation

LUdlow 3-4044

MAIL: BOX 2555 TERMINAL ANNEX, LOS ANGELES 54, CALIF. • LABORATORY: 2565 BELGRAVE AVE., HUNTINGTON PARK, CALIF.

Date August 7, 1956

Reference L.N. 13359-1

Submitted By Name Mr. Lee Downey

Address P.O. Box 3

City Carlsbad, State New Mexico

Lab. No.	13359-1
Marking	#1
Uranium Oxide (U_3O_8)	0.20%
Thorium Oxide (ThO_2)	1.04%

The above values are determined by measurement and evaluation of the specimen's radioactivity.

EQUILIBRIUM: Indeterminate because both Uranium and Thorium are present.

ACCURACY: Fair

KELDON RESEARCH CORPORATION

Thomas J. Rollins

TJR/t-3

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DATE	INITIALS	CODE

Pinie 8

THE USE OF THIS REPORT FOR ADVERTISING PURPOSES MUST RECEIVE OUR WRITTEN APPROVAL

11

Fig. 9-c

LABORATORY CERTIFICATE

Kelon

research corporation

LUdlow 3-4044

MAIL: BOX 2555 TERMINAL ANNEX, LOS ANGELES 54, CALIF. • LABORATORY: 2565 BELGRAVE AVE., HUNTINGTON PARK, CALIF.

Date August 31, 1956

Reference

Submitted By Name Mr. Lee Downey

Address P.C. Box 3

City Carlsbad, State New Mexico

Lab. No.	13359-1
Marking	#1
Uranium Oxide (U_3O_8)	0.16%

The above value is be wet assay and is an independent check on our previously furnished report.

This is a final value and should be considered the most nearly correct.

KELDON RESEARCH CORPORATION

Thomas J. Rollins

Thomas J. Rollins

TJR/lb

THE USE OF THIS REPORT FOR ADVERTISING PURPOSES MUST RECEIVE OUR WRITTEN APPROVAL

Fig. 10

Form No. Met. IV-2
(October 1953)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Southwest Experiment Station

P. O. Box 4097
Tucson 5, Arizona

W.H. Donley
2414 Mountain View Drive
Carlsbad, New Mexico

August 11, 1954

RADIOACTIVE SAMPLE REPORT

Sample Reference No.: UP-1623

Name and Location of Property: Capitan mining district, Lincoln County, New Mexico

Nature and Analysis of Sample: Radiometric analysis indicates your sample contains 0.95 percent equivalent U_3O_8; however, qualitative chemical tests show most of the radioactivity in the sample is due to thorium.

Microscopic examination reveals that your sample is composed of quartz, feldspars, hematite, limonite, zircon and a thorium mineral tentatively identified as thorite.

Remarks: Channel sample
Pine No 1. Claim

Signed Carl Rampacek
Carl Rampacek, Chief
Process Development & Research Branch
Metallurgical Division, Region IV

VW52-C9

VANADIUM CORPORATION OF AMERICA

DURANGO, COLORADO

Fig. 11

November 24, 1954

Lee Downey
P. O. Box 5
Carlsbad, New Mexico

REPORT OF ANALYSIS

Date	Lot No.	Name of Claim	$\%V_2O_5$	$\%U_3O_8$	$\%CaCO_3$
	4638		0.20	0.275	11.0

Channel sample
sample taken by
representive of
V. C. A.

Mongo
No Tuo

Very Truly Yours,

VANADIUM CORPORATION OF AMERICA

Fig. 12

LINDSAY CHEMICAL COMPANY

FOUNDED 1902

WEST CHICAGO, ILLINOIS

CHARLES R. LINDSAY III · PRESIDENT
MARK W. EICHELBERGER · VICE PRESIDENT-TREAS.
CLIFFORD W. STABENAU · SECRETARY
HOWARD E. KREMERS - DIRECTOR OF RESEARCH

CABLE ADDRESS "LINDSAY"

May 18, 1955

Mr. Lee Downey
P. O. Box 3
Carlsbad, New Mexico

Dear Mr. Downey:

This will follow up your phone conversation of Monday, May 16th with Mr. Eichelberger.

We are proceeding to do additional work on your samples 1, 2, 3, and ABO-31. When we have finished this further work on these samples, we will advise you further.

We are getting in touch with our fieldman and as soon as it can be arranged, we will ask him to contact you for a visit to the property.

Sincerely yours,

LINDSAY CHEMICAL COMPANY

Howard E. Kremers

Director of Research

HEK-lm

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DATE	INITIALS	CODE

Fig 13-A

UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF RAW MATERIALS

In reply refer to:
ASO: FSB: ms

September 20, 1955

13

Mr. Lee Downey
Box 3
Carlsbad, New Mexico

Dear Mr. Downey:

Mineralogical examination and chemical analysis of three samples, Nos. F-38754, 38755, and 38756, from the Monzo No. 2 Claim, Capitan Mountains district, Lincoln County, New Mexico have been received by this office.

These samples were taken by me when I examined the claim on June 22, 1955.

Sample F-38754 was a selected sample from the north side of the upper pit. The sample came from a 4-inch wide brecciated zone. This sample assayed 0.99% U_3O_8 equivalent (radiometric), 0.051% U_3O_8 chemically, and 4.54% ThO_2 chemically. The radioactive mineral in the sample was found to be thorite, an anhydrous thorium orthosilicate - ThO_2 SiO_2. Spectographic analysis of the sample shows that trace quantities of the rare earths yttrium, lanthanum, neodymium, and erbium are also present, and are probably contained in the thorite rather than as separate rare earth minerals.

Monzo #2 Selected Sample Lettered Spot on N side of U pit

Sample F-38755, a 3-foot chip sample across the end of the lower pit, assayed 0.005% U_3O_8 equivalent and 0.004% U_3O_8 chemically.

Sample F-38756, a 3-foot chip sample across the end of the lower pit, adjacent to sample F-38755, assayed 0.009% U_3O_8 equivalent and 0.004% U_3O_8 chemically.

Semi-quantitative spectrographic analyses on splits of the three samples are reported below:

Fig 13-B

Percent Present	F-38754	F-38755	F-38756
over 10	Si	Si	Si
5 - 10	Al, Fe	Al	Al
1 - 5	Th, K, Na	K, Na	K, Na
.5 - 1	---	---	Fe
.1 - .5	Ti, Ca	Ti, Ca, Fe	Ti, Ca
.05 - .1	Y, Mg	Mg	Mg
.01 - .05	Ba, Sr, Cu, La Nd, Mn, Er	Ba, Sr, Li, Cu	Ba, Sr, Cu, Li, Mn
.005- .01	Yb, Zr, Dy, B, Ga	B, Ga, Zr	B, Ga, Zr
.001- .005	---	Mn, V, Y	V, Y
under .001	Cr, Be	Cr, Yb Be	Cr, Yb, Be

If you have any questions regarding these samples, please feel free to call on us.

Sincerely yours,

Fred S. Boyd, Jr.
an

Fred S. Boyd, Jr., Geologist

country rock is Monzonite to Quartz Monzonite

Fig 14-A

CARPCO RESEARCH & ENGINEERING

CABLE ADDRESS
CARPCO

JACKSONVILLE 6, FLORIDA

ADDRESS MAIL TO
P. O. BOX 3272

TELEPHONE EL 4-5283

PLANT LOCATION
HAINES AT 32ND STREET

April 20, 1956

Ref: R-455

Mr. Lee Downey
P. O. Box 3
Carlsbad, New Mexico

Lee Mines 1, 2, 3

Our Project No. 448
Thorite Concentration

Dear Mr. Downey:

We wish to thank you for the assays you had run on the samples of the products we separated from your ore.

The metallurgical balance of our test stands as follows:

Identification	Product	% Weight	% ThO_2	Distribution ThO_2 %
2236-3	Magnetic non-cond.	8.7	2.10	60.2
2236-5	Magnetic cond.	2.3	4.80	36.4
2236-4	Non-magnetic non-cond.	87.3	Nil	--
2236-6	Non-magnetic cond.	1.7	0.60	3.4
		100.0	* 0.30	100.0

* Calculated.

From these figures, it results that our high intensity induced roll magnetic separator is able to make an excellent separation of the Th bearing minerals contained in your ore. This separation can be resumed as follows:

Your ore . . . . . * 0.30% ThO_2

Magnetic fraction . . . . . * 2.66% ThO_2
(2236-3 and 5)

Fig. 14-B

Tailings . . . . . * 0.011% ThO_2
(2236-4 and 6)

ThO_2 recovery 96.4%

Concentration ratio . . . . . 10 to 1

This completes our free preliminary test on your ore. Further work you may desire us to do on this ore, such as a pilot plant testing and any engineering work for the establishment of an industrial flow sheet for the treatment of your ore, can be carried out on the basis of our standard rate schedule herewith included.

Concerning the marketing of your thorium concentrates, we will suggest that you contact any one of the following potential buyers:

Lindsay Chemical Company, West Chicago, Illinois
Molybdenum Corp. of America, New York, New York
Maywood Chemical Works, Maywood, New Jersey
Rare Earths, Inc., Pompton Plains, New Jersey
Thorium, Ltd., London, England

Very truly yours,
CARPCO RESEARCH & ENGINEERING

R. E. Barthelemy
Director of Research

REB/kl

Enclosure - Rate schedule

Fig 15-A

AFFILIATE OF
CARPCO MANUFACTURING, INC.
CARPCO CONSTRUCTION CORPORATION
CARPCO EXPORT CORPORATION
CARPCO AUSTRALASIA, PTY. LTD.

Carpco
RESEARCH AND ENGINEERING
JACKSONVILLE 6, FLORIDA
U.S.A.

ADDRESS MAIL TO P. O. BOX 3272
PLANT LOCATION 4123 HAINES STREET
CABLE ADDRESS CARPCO
TELEPHONE EL 3-3681

March 5, 1957

Ref: R-1262

Mr. Lee Downey
P. O. Box 3
Carlsbad, New Mexico

Fig. 8

Our Project No. 643

Dear Mr. Downey:

Supplementing our report R-1236, please find herewith the technical data covering the above referenced project.

The metallurgical balance of our test stands as follows:

Identification	Product	% Weight	% ThO_2	Distribution ThO_2 %
3175-4	Magnetic	5.4	10.20	56.4
3175-5	Non-magnetic	94.6	0.45	43.6
		100.0	* 0.97	100.0

* Calculated.

From these figures, it results that our high intensity induced roll magnetic separator is able to make a separation of the Th bearing minerals contained in your ore. This separation can be resumed as follows:

Your ore . . . . . * 0.97% ThO_2

Magnetic fraction (3175-4) . . . . . 10.20% ThO_2

Tailings (3175-5). . . . . 0.45% ThO_2

ThO_2 recovery 56.4%

Concentration ratio . . . . . 18.5 to 1

Fig 15-B

Very truly yours,
CARPCO RESEARCH AND ENGINEERING

R. E. Barthelemy
Director of Research

REB/kl

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DOCKET COPY

August 6, 1958

Supplemental Summary of Proposed Project
(Please refer to Summary of October 18, 1957)

Object: To reaffirm denial of October 18, 1957.

Docket No. DMEA-4792

Date of Supplemental Report and
Request For Reconsideration: February 18, 1958

Referred to Field Team
For Reexamination: May 13, 1958

Field Team Report: July 10, 1958 - M. H. Salsbury, USBM,
R. U. King, USGS

Purpose of this re-examination was to inspect new excavations and to reappraise the potential of the property for thorium deposits. Two full days were spent on the property.

There were five localities where excavations had exposed the mineralized breccia veins to the point where an adequate examination could be made and representative samples taken.

1. The breccia vein was traced for a distance of 500 feet between cuts on the Eagle No. 7 and No. 8 claims by float, outcrop and radioactivity. It was projected an additional 1,000 feet to the north side line of the Eagle No. 8 claim. A representative sample of the breccia vein in the cut on the Eagle No. 7 claim showed radioactivity of .1 to .3 Mr/hr, 0.02% $eThO_2$, and 0.08% ThO_2 by chemical analysis.

2. The workings on the Lajdale No. 2 claim consist of a cut 100 feet by 20 feet by 25 feet deep at the face. An irregular breccia 6 inches to 1 foot wide was exposed in the face. Radioactivity in the breccia ranged from 1 to 1.5. Equivalent ThO_2 was 0.70% and chemical ThO_2 was 0.43. Samples taken on the footwall and hanging wall showed negligent ThO_2 content.

3. On the Monzo No. 2 claim a 50-foot-long trench exposed a breccia zone 2 to 6 inches wide, striking N 70° E and dipping 25° N.W. The average radioactivity over 10 feet of the exposed breccia was .2 MR/hr. No abnormal radioactivity was detected in the wall rocks. No sample was taken in this cut.

4. On the Pinie No. 8 claim, 4 closely-spaced core holes were drilled adjacent to a 4-foot deep pit from which 3 tons of thorium-bearing material was reported to have been mined for mill testing. The core from 3 of the holes showed no anomalous radioactivity. Apparently the core from the fourth hole was not available. Some 20 to 30 tons of additional material had been blasted from the pit, but no well defined radioactive zone was exposed except an irregular mass of breccia covering about one square foot of the north wall. Radioactivity in the breccia ranged from .5 to 1.5 MR/hr. A chip sample over the 15-foot length of the pit bottom showed 0.27% $eThO_2$. No chemical analysis was made of the sample.

5. A 4-foot-wide breccia, cutting massive monzonite, was exposed in an open cut on the GG No. 2 claim. It was traced for a few hundred feet to the northwest. A chip sample across the zone showed radioactivity of 1 Mr/hr, 0.30% $eThO_2$, and 0.10% chemical ThO_2.

All equivalent ThO_2 reported was calculated by difference in the USGS laboratory at Denver. Chemical analyses were made by Root and Simpson, Denver, Colorado.

While at least one thorium-bearing breccia vein was determined to have significant continuity, it was concluded that the tenor of the deposits in no place approached ore grade, nor did it appear likely that the grade of the breccia veins would increase with depth. Samples taken during the re-examination in part duplicated samples taken during the original examination, and analytical results confirmed the earlier analyses. The results also confirmed the fact that the original examination was properly made and that the conclusions drawn from that examination were sound. It is very unlikely that significant deposits of thorium or uranium will be found on this property.

Commodity Group Comments:

U. S. Bureau of Mines - James Paone - July 30, 1958.

Agrees with the Field Team and advises denial of the reactivated application.

U. S. Geological Survey - N. E. Nelson - August 5, 1958.

Concurs with the Field Team's conclusion that it is unlikely that significant deposits of thorium will be found on the property.

Division of Rare and Miscellaneous Metals -
Michael Ching - August 5, 1958

The original application was denied on October 18, 1957. The Applicant refused to accept the Government's conclusions at that time and subsequently did some further work on the property. A new geologic report and other information was submitted with a request for a re-examination of the property. The foregoing report by an entirely new team of examiners confirms the conclusions reached as a result of the original examination. The time and effort spent should convince the Applicant that the latest examination was adequate and thorough.

Conclusions and Recommendations:

The re-examination has confirmed our earlier conclusion that the property does not have the potential for a significant discovery. It is recommended that the Applicant be so advised.

F. L. Knouse
Acting Director
Division of Rare and
Miscellaneous Metals

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/12	Martenstorf	100
8/12	Johnson	
8/13	H. J.	200
		900

17 + F

AUG 12 1958

Mr. Lee Downey, President
Atomic Minerals Corporation
101 Downey Building
201 South Malaguena Street
Carlsbad, New Mexico

Re: Docket No. DMEA-4792
(Thorium and Uranium)
Abo, et al., Claims
Lincoln County, New Mexico

Dear Mr. Downey:

Your original application for aid in an exploration project on the subject property was denied by our letter of October 18, 1957.

You subsequently performed some additional work on the property and submitted the results to our Denver office with a request that the property be re-examined and re-appraised.

As a result of your request, a re-examination of the property was made on May 26-28, 1958. An experienced team, composed of a geologist and a mining engineer, re-examined the property in your presence. A total of two full days were spent examining discovery pits, major excavations, and new prospect workings.

The results of the examination support our former conclusion that the probability of finding significant ore reserves on this property is not promising; therefore, we find no basis to change our original decision.

We wish to thank you again for your interest in the DMEA program and for bringing the new information to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

Copy to Hon. Clinton P. Anderson,
United States Senate

MChing/COMittendorf/gla/fw-8/12/58
cc: Admr's Reading File
Docket
Operating Committee
THKiilsgaard, Rm 5224
Reg. III (2)
Mr. Ching

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/8/58	Ching	700
8/8/58	Kusunoki	700
8/8	Schnabel	130
		~~110~~
		100
		~~112~~ 220
		225

8/8 Lamb 130
8/8 Nelson 130

Mr. Lee Downey, President
Atomic Minerals Corporation
101 Downey Building
201 South Halagueno Street
Carlsbad, New Mexico

Re: Docket No. DMEA-4792
(Thorium and Uranium)
Abo, et al., Claims
Lincoln County, New Mexico

Dear Mr. Downey:

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As a result of your request, a re-examination of the property was made on May 26-28, 1958. An experienced team, composed of a geologist and a mining engineer, re-examined the property in your presence. A total of two full days were spent examining discovery pits, major excavations, and new prospect workings. ~~Six representative samples were taken from the most radioactive of the deposits and analyzed.~~ out

The results of this examination support our former conclusion that the probability of finding significant ore reserves on this property is not promising; therefore, we find no basis to change our original decision.

For your information, the following results were obtained from analyses of the six samples:

Sample No.	Location	% $eThO_2$	% ThO_2
MHS 201	Lajdale No. 2	0.70	0.43
MHS 202	" " 2	0.02	-
MHS 203	" " 2	0.04	-
MHS 204	Pinie No. 8	0.27	-
MHS 205	Eagle No. 7	0.02	0.08
MHS 206	GG No. 2	0.30	0.10

out.

8623

We wish to thank you again for your interest in the DMEA program and for bringing the new information to our attention.

Sincerely yours,

Administrator

Copy to: Senator Anderson
United States Senate

MChing/gla
(8-6-58) 8-8-58
cc: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Mr. Ching
DMEA Field Team, Region III (2)

Note:

This proposed project has some of the earmarks of the American Strategic Minerals Corp. Docket 4022 and has been treated in the same manner.

M. Ching

(Omea - 47927)

EA Form 7
2-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/6/58	Ching	700
8/6/58	Kugum	700
		130
		110
		100
		220
		225

Mr. Lee Downey, President
Atomic Minerals Corporation
101 Downey Building
201 South Halagueno Street
Carlsbad, New Mexico

Re: Docket No. DMEA-4792
(Thorium and Uranium)
Abo, et al., Claims
Lincoln County, New Mexico

Dear Mr. Downey:

Your original application for aid in an exploration project on the subject property was denied by our letter of October 18, 1957.

You subsequently performed some additional work on the property and submitted the results to our Denver office with a request that the property be re-examined and re-appraised.

As a result of your request, a re-examination of the property was made on May 26-28, 1958. An experienced team, composed of a geologist and a mining engineer, re-examined the property in your presence. A total of two full days were spent examining discovery pits, major excavations, and new prospect workings. Six representative samples were taken from the most radioactive of the deposits.

The equivalent ThO_2 content of each of the six samples was determined by the U. S. Geological Survey laboratory at Denver, and the ThO_2 content of three samples was determined by chemical analysis by Root & Simpson of Denver. Following are the results:

Sample No.	Location	USGS % $eThO_2$	Root & Simpson % ThO_2
MHS 201	Lajdale No. 2	0.70	0.43
MHS 202	" " 2	0.02	-
MHS 203	" " 2	0.04	-
MHS 204	Pinie No. 8	0.27	-
MHS 205	Eagle No. 7	0.02	0.08
MHS 206	GG No. 2	0.30	0.10

8623

The results support our former conclusion that the probability of finding significant ore reserves on this property is not promising.

We wish to thank you again for your interest in the DMEA program and for bringing the new information to our attention.

Sincerely yours,

Administrator

MChing/gla
8-6-58
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Mr. Ching
DMEA Field Team, Region III (2)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/12	Mittendorf	100
8/12	Johnson	

AUG 12 1958

Hon. Clinton P. Anderson
United States Senate
Washington 25, D. C.

Re: Docket No. DMEA-4792
(Thorium and Uranium)
Atomic Minerals Corporation
Abo, et al., Claims
Lincoln County, New Mexico

Dear Senator Anderson:

Because of your past interest in the subject case, I am enclosing a copy of my letter of even date to the Atomic Minerals Corporation. I am sure you will find it self-explanatory.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

Enclosure

MChing/COMittendorf/izm/fw-8/12/58

cc: ~~Docket~~
Admr. Reading File
Reg. III (2)
Operating Committee
Mr. Ching

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/8	Ching	700
8/8	Lusuk	700
8/8	Selfridge	300
		170
		100
		220
		225

8/8 Lamb (130
8/8 Release (130

Hon. Clinton P. Anderson
United States Senate
Washington 25, D. C.

Re: Docket No. DMEA-4792
(Thorium and Uranium)
Atomic Minerals Corporation
Abo, et al., Claims
Lincoln County, New Mexico

Dear Senator Anderson:

For your information we are enclosing a copy of a letter of even date to Atomic Minerals Corporation which is self-explanatory.

If you desire additional information on this proposed project, please call upon us.

Sincerely yours,

Administrator

Enclosure

MChing/izm 8-8-58
cc: Mr. Ching
Admr.'s Reading File
Operating Committee
DMEA FT Reg. 3 (2)

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado
August 8, 1958

DMEA
RECEIVED AUG 11 1958
DATE | INITIALS | CODE
8/12 | W.g. | 225
" | MC | 700
DENIAL 225

Memorandum

To: Chairman, Operating Committee, DMEA

From: Alternate Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4792 (Thorium-Uranium), Atomic Minerals Corporation (Abo et al. claims), Lincoln County, New Mexico

In conjunction with the joint re-examination report, dated July 10, 1958, enclosed are the original and two copies of a memorandum, dated August 8, 1958, from E. N. Harshman, listing the results of the chemical assays for thorium.

J. W. Townsend

J. W. Townsend

Enclosures

IN REPLY REFER TO:

DMEA
DEPARTMENT OF THE INTERIOR
AUG 8 - 1958
REGION III
DENVER, COLORADO

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

August 8, 1958

AUG 11 1958

DATE	INITIALS	CODE

Memorandum

To: Acting Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 4792 (Thorium, Uranium), Atomic Minerals Corporation (Abo et al. claims), Lincoln County, New Mexico

At the time the King-Salsbury memorandum of July 10, 1958, written as a result of a re-examination of the subject property, was prepared the results of the chemical analyses for thorium run by the Denver laboratories of the U. S. Geological Survey on the six samples taken during the re-examination were not available.

The results now have been received and are as follows:

Sample No.	% ThO_2 (chemical)
MHS 201	0.72
202	0.031
203	0.043
204	0.30
205	0.038
206	0.32

You will note that the chemical analyses and the analyses for equivalent ThO_2, both run in the U.S.G.S. laboratories, are in close agreement. The results of U.S.G.S. analyses indicate a slightly higher thorium content in the samples than do those of Root and Simpson.

The results of the chemical analyses by the U.S.G.S. confirm the conclusion that the thorium-bearing veins on the subject property do not contain significant amounts of thorium, and that denial of the application for exploration assistance was appropriate.

E. N. Harshman

E. N. Harshman

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 6 1958

DATE	INITIALS	CODE
8/6	N.g.	225
		700
Complete		

IN REPLY REFER TO:

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

August 5, 1958
Re: DMEA 4792
Atomic Minerals Corp.
Abo et al claims
Lincoln Co., New Mexico
$853,587.50 - Thorium-Uranium

Memorandum

To: F. L. Knouse, Defense Minerals Exploration Administration

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

Subject: Review of supplementary Field Team Report

The applicant requested assistance in exploring for thorium and allied radioactive minerals in a large number of faults in quartz monzonite by trenching and drilling. Attention had been centered on two or three localities where small open cuts had been made. Such spots had been sampled repeatedly but selected material appears to have received the most attention.

The prospect was examined and acting on the recommendation of the examiners, the application was denied. The applicant did further work following which a second examination was made. Again the examiners found only low grade thorium mineralization in breccia zones, one of which at least has considerable length.

The present examiners, as did those who made the first examination, conclude it is very unlikely that significant deposits of thorium or uranium will be found on the property and again it is recommended that the application be denied.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 1 1958

DATE	INITIALS	CODE
8-1	C	220
8-4	MC	700

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

Date July 30, 1958

DMEA Docket No. 4792
DMEA Contract No.
Commodity Thorium-Uranium
Name of Applicant Atomic Minerals Corporation
Name of Property Abo et al. claims
Location of property Lincoln County, New Mexico
Estimated cost of project -

Memorandum

To: Frederick L. Knouse, Acting Director
Rare and Misc. Minerals Div., DMEA
From: James Paone, Bureau of Mines JP
Uranium Commodity Committee
Subject: Review of Field Team Report
(Applications, Field Team Report, etc.)

1. Date of subject document: 7/21/58. 2. Date received by reviewer: 7/28/58

3. Prior reports on this property known to reviewer: Yes ☐ No ☐

4. Prior reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked 'yes' above:

8. Factors meeting special consideration:

a. Location ☐
b. Ownership ☐
c. Evidence of mineralization ☐
d. Geology ☐
e. Proposed exploration method ☐
f. Alternate exploration method ☐
g. Costs
h. ☐

9. Action advised:

a. Obtain information from applicant ☐
b. Refer to Field Team ☐
c. Decline ☒
d. Agree with Field Team ☒
e. Disagree with Field Team ☐
f. Suggest alternate plan ☐
g. Request another coordination ☐
h. Approval ☐
i. Consult with Mr. _____ at _____ AEC Office

10. Remarks: (Use back of page if necessary)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado
July 21, 1958

RECEIVED JUL 28 1958		
DATE	INITIALS	CODE
7/28	C	220
	esf	130
8/1	cf	220
8/4	MC	700

Memorandum

To: Secretary to the Operating Committee

From: Field Team, Region III

Subject: Docket No. DMEA 4792 (Thorium-Uranium) Atomic Minerals Corporation (Abo et al. claims) Lincoln County, New Mexico Joint Supplemental Report of Examination

In compliance with the Chairman's letter dated May 13, 1958, enclosed are the original and two copies of a Joint Report of Re-examination on the subject property by M. H. Salsbury, USBM, and R. U. King, USGS.

The field examiners conclude that significant deposits of throium or uranium would very unlikely be found on this property, and that the original examination was properly made and sound conclusions drawn from that examination. Accordingly, they recommend that the application for assistance to explore for uranium and/or thorium be denied.

We concur in the findings and recommendations of the field examiners.

J. W. Townsend
Alternate Acting Executive Officer

RE-EXAM FT. REP.

Reviewed by
DMEA OPERATING COMMITTEE
8/1/58
(date)

FOR GOVERNMENT USE ONLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
Geological Survey
July 10, 1958

DMEA
DEPARTMENT OF THE INTERIOR
JUL 15 1958
REGION III
DENVER, COLORADO

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman
F.B.M. for E.N.H.

From: M. H. Salsbury - R. U. King

Subject: Docket DMEA-4792 (Th, U) Atomic Minerals Corporation (Abo et al claims) Lincoln County, New Mexico

The Abo(et al) claims were re-examined by M. H. Salsbury, USBM and R. U. King, USGS, May 26 to 28, 1958, in company with Messrs. Lee Downey, President, Atomic Minerals Corp., R. D. Harris, Secretary-Treasurer, and D. M. Ferrebee, consulting geologist. The purpose of the examination was to inspect new excavations made by the applicant and to reappraise the potential of the property for thorium deposits, in response to the applicants disagreement with the findings of the examination of September 12, 1957, and criticism of methods used.

A total of two full days were spent on the property during which time a number of discovery pits were examined, claim corners and location notices checked, and all of the major excavations and new prospect workings were inspected. Six samples were collected from the most radioactive of the deposits. Four hours were spent in conference with Messrs. Downey, Ferrebee, and Harris, discussing the geology and occurrence of thorium in nature, the measurement of

TRANSMITTED

Reviewed by
DMEA
8/1/58

JUL 21 1958

radioactivity of thorium occurrences in relation to estimation of thorium oxide content, and the applicants' metallurgical research (work on a process to upgrade the thorium-bearing vein material to a marketable grade).

The radioactive deposits of the Abo, et al, claims consist of breccia veins, sheeted zones, and individual fractures, in fine grained monzonite and rhyolite porphyry. They contain variable mixtures of iron oxides, and thorium minerals, with or without a fine grained quartz-feldspar gangue. The deposits are characteristically rusty red to brown or have a pinkish cast due to the oxide coatings on the network of minute fractures in sheeted zones. Radioactivity ranges from 0.02 mr/hr(gamma-ray) in unmineralized exposures of fractured monzonite to 3. mr/hr over a 1 square foot area of mineralized breccia on the Pinie No. 8 claim. Equivalent thorium oxide content of the deposits, indicated by the sampling, ranges from 0.02 to 0.70 percent; the maximum uranium content amounts to 0.007 percent. Sample data and results of analyses are shown in Table I. The radioactive mineral of the deposits has been identified by the U. S. Atomic Energy Commission as thorite, the presence of which is inferred due to the reddish brown amorphous cementing material that makes up the greater part of the matrix of the breccias and coats fracture surfaces. Much of the reddish brown material, however, is not significantly radioactive and it is therefore presumed to be mostly iron oxide. Fine grained specularite is also commonly disseminated through the matrix of the breccia veins.

The breccia veins are the only significant visible structures along the flanks of the Capitan Mountains in the vicinity of the applicant's property. They range in width from a few inches on the Monzo No. 2 claim to as much as 6 feet on the Eagle No. 7 claim.

The breccia vein, exposed in the discovery cut on the Eagle No. 7 was traced along the surface, by float, outcrop, and radioactivity, from the cut for a horizontal distance of about 500 feet, and vertical distance of over 100 feet, to the discovery cut on the Eagle No. 8 claim. By projection between pits this breccia vein can be reasonably extended an additional 1,000 feet to the north side line of the Eagle No. 8 claim. The results of analysis of a sample collected of the breccia vein in the discovery cut on the Eagle No. 7 are shown in Table I.

The workings on Lajdale No. 2 consist of a cut 100 feet by 20 feet by 25 feet deep at the face. An irregular breccia 6 inches to 1 foot wide of fine grained monzonite cemented with reddish-brown stained radioactive material, is exposed in the face. The breccia strikes S70°W and dips 80°N. Maximum radioactivity amounts to 1.5 mr/hr in the breccia, and the radioactivity of the monzonite wall rocks ranges from .1 to .5 mr/hr. The breccia vein has not been traced below the trench and has virtually pinched out within 25 feet beyond the face of the trench. Three samples were collected from this locality, with results in Table I.

On the Monzo No. 2 claim a 50-foot long trench trending N30°E exposes a breccia zone 2 to 6 inches in width striking N70°E and dipping 25°NW. The breccia zone visible in the northeast corner of the trench pinches out half way across the face, but continues upward along the east wall to the original ground level. The average radioactivity over 10 feet of exposed breccia is .2 mr/hr. The trench is excavated in a sheeted zone of fine grained monzonite. The wall rocks for distances up to 10 feet on each side of the breccia are highly fractured, with the fracture surfaces coated with red to brown iron oxides, which give a pink cast to the highly fractured rocks. No abnormal radioactivity was detected in the wall rocks.

On Pinie No. 8 claim 4 core holes have been drilled in a rather closely spaced group adjacent to a 4-foot deep pit from which 3 tons of thorium-bearing material is reported to have been mined for purposes of mill testing. No anomalous radioactivity was detected in any of the cores from 3 of these holes, which were unlabeled and in poor state of preservation. Some 20 to 30 tons of material have been blasted from the pit and is scattered about the immediate area. No well defined radioactive mineral bearing zone is exposed in the pit, except for an irregular mass of breccia that covers about one square foot of the north wall. Fine grained, fractured, monzonite that is highly stained with iron and manganese oxides contains radioactivity ranging from 0.5 to 1.5 mr/hr. One chip sample was taken over the length of the pit for analysis, the results of which are shown on Table I.

A 4-foot wide breccia that cuts fine grained massive fresh monzonite is exposed in an open cut on the CG No. 2 claim. The breccia is composed of angular fragments of fine grained monzonite and rhyolite porphyry in a matrix of reddish brown radioactive material. The breccia is frozen to the walls, but the contact of the unaltered monzonite is sharp. The breccia strikes N70°W and dips 70°S; it has been traced down the slope for a few hundred feet to the northwest, but has not been exposed uphill to the southeast. One sample was collected from this locality for analysis, the results of which are shown in Table I.

Although at least one of the thorium-bearing structures (breccia vein) was determined to have significant continuity, the tenor of the deposits in no place approaches ore grade, nor does it appear that the grade of the breccia veins is likely to increase with depth.

Samples collected during the re-examination in part duplicate original samples, and analytical results confirm the earlier analyses.

On the evidence available during the re-examination of this property, it is concluded that it is very unlikely that significant deposits of thorium or uranium will be found on this property, and that the original examination was properly made and sound conclusions drawn from that examination.

It is recommended therefore that the application for assistance to explore for uranium and/or thorium be denied.

M. H. Salsbury
Mining Engineer

R. U. King
Geologist

RUK/id

Sample No.	Description	Location	Radioactivity (gamma-ray mr/hr)	eU percent	U percent	$eThO_2$ 1/ percent	ThO_2 2/ percent
MHS 201	Breccia	Lajdale No. 2	1 to 1.5	0.13	0.007	0.70	0.43
MHS 202	Foot wall	Lajdale No. 2	.5	0.006	0.002	0.02	n.a. 3/
MHS 203	Hanging wall	Lajdale No. 2	.1	0.008	0.001	0.04	n.a.
MHS 204	Chip across bottom of pit, 6 in. x 15 ft.	Pinie No. 8	0.5 to 1.5	0.05	0.003	0.27	n.a.
MHS 205	Chip across face and wall of discovery trench	Eagle No. 7	.1 to .3	0.009	0.006	0.02	0.08
MHS 206	4-foot chip across breccia zone in face of cut below mine road.	GG No. 2	1.	0.057	0.004	0.30	0.10

TABLE I

Results of analysis of samples from Abo et al claims

1/ calculated by difference, U.S.G.S. Laboratory

2/ chemical analysis by Root & Simpson, Denver, Colo.

3/ not assayed

1/21 C 220 700

224 New Customhouse
Denver 2, Colorado
May 19, 1958

Memorandum

To: E. N. Harshman
M. H. Salsbury w/enclosures 1-11

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4792 (Thorium) Atomic Minerals Corporation (Abo et. al. claims) Lincoln County, New Mexico

The Washington Office, DMEA has requested a re-examination of the subject application by the Denver DMEA Office. Enclosed are the following:

1. Copy of a letter from the Chairman, Operating Committee dated May 13, 1958.

2. A review of supplement to the application by W. P. Williams, USGS.

3. Assay certificate from Charles O. Parker and Company dated April 17, 1958.

4. Assay certificate from the Custom Assay Office dated April 28, 1958.

5. Copy of a letter dated February 13, 1958, from Judson H. Whitman to Mr. Lee Downey.

6. Copy of a letter from Lee Downey to Judson H. Whitman dated February 17, 1958.

7. Copy of a letter from the Applicant to Mr. Ernest Wm. Ellis dated May 5, 1958.

8. Copy of a letter dated April 12, 1958, from the Applicant to Mr. Ellis.

9. Copy of a letter dated February 18, 1958, from the Applicant to W. H. King.

10. A geological report on the subject property by D. M. Ferebee.

11. Report of examination on the subject property by W. L. Emerick and T. M. Romslo.

Please return all of the above to this office with your Joint Report of Examination.

Original signed by
E. N. HARSHMAN

E. N. Harshman

HMC:dp

cc: Sec. Op. Comm. 2
DMEA/DFC
Romslo
Emerick
Docket
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/9/58	Ching	700
5/12	Ellis	700
5/12	GEL	130
"	Johnson	110
"	Matthews	100
		220
		700

MAY 13 1958

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4792 (Thorium)
Atomic Minerals Corporation
Abo, et al., Claims
Lincoln County, New Mexico

Dear Mr. Harshman:

As you know, the subject application was denied on October 18, 1957.

On February 20, 1958, your office forwarded three sets of new information which resulted from work done on the property by the Applicant subsequent to the denial. With the new information was the Applicant's request that a second examination of the property be made.

The new information was not entirely satisfactory and in a letter, dated March 6, Mr. Ellis requested clarification and some assay reports. As a result, the Applicant forwarded an explanation by D. M. Ferebee, consulting geologist, but no assay certificates were enclosed.

On April 16 the Applicant was advised by Mr. Claude Wood of Senator Anderson's office to submit some assay certificates.

We have now received a letter, dated May 5, 1958, from the Applicant enclosing duplicates of three assay reports. This material, as well as the material previously submitted, is not impressive; however, it appears to be the best that can be obtained.

We are enclosing two copies each of the following:

1. Letter, dated February 18, 1958, from Lee Downey to W. H. King, with attached supplemental information.

2. Letter, dated April 12, 1958, from Lee Downey, with attached letter from D. M. Ferebee, dated April 7, 1958.

8623

3. Letter, dated May 5, 1958, from R. D. Harris, Secretary-Treasurer of Atomic Minerals Corporation.

4. Three assay reports by Charles O. Parker, The Custom Assay Office, and Michigan Chemical Corporation, with attached letter from Lee Downey.

5. Some comments, dated March 3, 1958, by W. P. Williams, regarding the first batch of supplemental material received.

Please consider the subject docket as having been reactivated and schedule a re-examination of the property as soon as possible. As you know, the Applicant has disagreed with the findings of the first field examination and has criticized the methods used. If possible, it is suggested that a new examining team be sent on this occasion, preferably men who have had experience dealing with this type of situation. A careful re-examination in the presence of the Applicant, with systematic sampling of exposed mineralized areas appear to be in order. Splits of the samples should be sent to the Geochemistry and Petrology Branch of the USGS at Denver and to a reliable commercial assayer for chemical analyses.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

Enclosures

MChing/gla
5-9-58
cc to: Admr.'s Reading File
Operating Committee
Mr. Ching
THKiilsgaard, 5224

APPROVED:

Frank D. Lamb (HB)
Member, Bureau of Mines

W. P. Williams (HB)
Member, Geological Survey

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/9/58	Ching	700
5/12	Ely	700
5/12	Eldridge	130
"	Johnson	110
	Mittendorf	100
5/13	C O	220
		700
5/12	Lamb	130
5/12	Williams	130

MAY 13 1958

Mr. Lee Downey, President
Atomic Minerals Corporation
P. O. Box 3
Downey Building
Carlsbad, New Mexico

Re: Docket No. DMEA-4792 (Thorium)
Abo, et al., Claims
Lincoln County, New Mexico

Dear Mr. Downey:

Mr. R. D. Harris' letter, dated May 5, 1958, forwarding three assay reports, has been received. All supplemental information relating to the subject property is now being referred to Mr. E. N. Harshman, Acting Executive Officer, DMEA Field Team, Region III, 224 New Customhouse Building, Denver 2, Colorado, for a field examination.

Any assistance you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Copy to:
Hon. Clinton P. Anderson

MChing/gla
5-9-58
cc to: Admr.'s Reading File
Mr. Ching
DMEA Field Team, Region III (2)

8623

DM. FORM 6 REFERENCE SLIP

REV. 12-56 DEFENSE MINERALS EXPLORATION ADMINISTRATION

TO:	INITIALS	DATE
1. ~~Code 100~~	Chu	5/9
2. " 225		
3. " 700		
4.		
5.		
FROM: Code 700 (Mr. Ching)		

FOR: Check items for action desired

____ Action ____ Reply for signature of _____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions X Your information

REMARKS:

Letters to Region III, and acknowledgment to the Applicant (with a copy of the latter to Sen. Anderson), have been prepared, requesting re-examination of the property. Hope to get it to the Operating Committee for Monday's meeting, but are waiting for photostats of supplemental material to be referred to the Executive Officer.

DMEA Form 20
March 1958

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
Washington 25, D. C.

MEMORANDUM OF CONGRESSIONAL CALL

TO: Director, Division of Legislation (DL)

FROM: Administrator, DMEA C. O. Mittendorf (Signature) 5/10/58 (Date)

Call from Claude Wood, Office of Senator Clinton P. Anderson Date of call May 9, 1958 Time 4:10 p.m.

State below subject of call and conclusions or action taken.

Mr. Wood called about a letter to DMEA from Atomic Minerals Corporation (Docket DMEA-4792) with attached supplemental information on its property in New Mexico. I told Mr. Wood that action was being taken and that more definite information would probably be available next Monday, at which time I would advise him.

5/13/58 Mr. Ching phoned Mr. Claude Wood advising that the letter to Rep. III for re-examination of the property was mailed to day. go

Michael Ching 5/9/58
Call received by (Date)
Division of Rare & Miscellaneous Metals

Prepare in duplicate when call is received. Send both copies to Administrator who will send original to DL and copy to DMEA Central Files. If call pertains to application or contract, copy will be recorded and filed in official docket.

34038

4792

LEE DOWNEY
P. O. BOX 3
DOWNEY BUILDING
CARLSBAD, NEW MEXICO

OFFICIAL FILE COPY
DMEA
RECEIVED
DATE
5/7 C 220
700

May 5, 1958

Mr. Ernest Wm. Ellis
Director
Defense Mineral Exploration Administration
Division of Rare and Miscellaneous Metals
Department of the Interior
Washington 25, D. C.

Dear Mr. Ellis:

Pursuant to the request by the Board of Directors of the Atomic Mineral Corporation, I hereby submit for your approval some recent chemical analysis of our Capitan properties.

We would like to inform you of the fact that during our four years of exploration on our thorium properties, we have had very little success in obtaining consistent and reliable analysis. To emphasize this problem, which has become very perplexing, I would like to relate to you a telephone conversation with Mr. Judson H. Whitmore of the Michigan Chemical Corporation. Mr. Whitman indicated his desire for some analyses of our ore. He was asked where he preferred our ore to be sent for a reliable analysis. His answer was, "There isn't any place -- send it to me!" This is the problem that has not been resolved to date. The alternative that was dictated is the method that we have used during our latest semi-detailed exploration program, that of correlative radiometric determination of values.

It was with a sense of misgivings that we sent the last series of analyses into the commercial laboratories. The results confirmed our contentions. The direct variance in the results of the analyses was frustrating, and at present, in the uniformity and consistency of the analytical processes of the various commercial laboratories. These samples were prepared in our laboratory by crushing, pulverizing, screening, and splitting in accepted laboratory procedure.

The original ore, represented by these analyses reports, are from the north and south side groups.

Sample #1 on each of the reports is a split sample from a 25 pound sample from Piney #8 of the south side group.

Sample #2 on each of the reports is a split sample from a 25 pound sample from the GG claim of the north side group.

We chose this means of sample analysis in order to check the value results secured from the laboratories on identical samples.

Please find enclosed a photostated letter from Michigan Chemical Corporation, along with a letter from Mr. Lee Downey, President of Atomic Minerals Corporation. This analysis, as furnished by Michigan Chemical Corporation, was obtained from a sample comprised of rough rock weighing approximately 25 pounds. This sample was procurred from the Piney #8 claim of the south side group. The sample was crushed, prepared, and chemically assayed by the Michigan Chemical Corporation laboratory personnel.

Mr. Ellis, in view of the many assays that have been procurred in the past and which are a part of the original report, we feel that you will concur with our thinking in respect to the questionable merit of further assaying, due to the unreliability of the commercial laboratories. Should this not meet with your approval, please so inform us.

Your continued interest is appreciated.

Sincerely yours,

R. D. Harris

R. D. Harris
Secretary-Treasurer
Atomic Minerals Corporation

RDH:kcm
Enclosures

A. J. BOWLAND

Laboratory at 105 S. Santa Fe St.
Since 1896

THE CUSTOM ASSAY OFFICE

P. O. Box 811
El Paso, Texas

NAME Lee Downey Apr 28-58

LOT	GOLD OZS. PER TON	SILVER OZS. PER TON	LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	Thorium			
Sample # 1						.22		/	
" # 2						.25			

Charges $ 20.00

CUSTOM ASSAY OFFICE

RECEIVED
DATE
APR 28 1958
DNEV
OFFICIAL FILE COPY

[illegible] STREET TELEPHONE MAIN [illegible]

[redacted]

CHEMISTS • ASSAYERS • ENGINEERS

DENVER 5, COLORADO

No. [illegible]

Date April 17, 195[illegible]

Joe Dunnigan,
P. O. Box [illegible],
[illegible],
New Mexico.

We hereby Certify, that the samples assayed for you gave the following results:

DESCRIPTION	VANADIUM OXIDE %	VANADIUM PENTOXIDE %	LIME CaO%	MOISTURE %	VANADIUM OXIDE %	TOTAL [illegible]	CONTAINED VANADIUM PENTOXIDE [illegible]
Sample [illegible]					0.7[illegible]		
[illegible]					0.6[illegible]		

PLEASE PAY FROM THIS INVOICE AS NO OTHER STATEMENT WILL BE MAILED. THANK YOU.

Charge $ 20.00

CHARLES O. PARKER & CO.
CHEMISTS, ASSAYERS and ENGINEERS

MICHIGAN CHEMICAL CORPORATION

SAINT LOUIS · MICHIGAN

RARE EARTHS AND THORIUM DIVISION

REPLY TO
BOX 425
DETROIT, MICHIGAN

~~ORIGINAL FILE COPY~~

DMEA
RECEIVED 7 1958
DATE

February 13, 1958

Mr. Lee Downey
P. O. Box 3
Carlsbad, N. Mexico

Dear Mr. Downey:

We have completed the analytical results on the set of samples which you recently sent to us. The results were rather dissapointing. They are tabulated below:

	Heads	Tails	Conc.	
North	1.6	0.8	2.8	ThO_2 percent
South	4.2	2.0	5.5	

As you can see, your concentrating process does not appear to be very efficient. Also the material does not approach the grade which were indicated in your first set of samples. For example; your initial sample number 1 showed 2.95%, no. 2 showed 11% and no. 3 had 10.5%. What concentration process did you use?

We should like to hear your reaction to these results before any further decisions are made.

Yours very truly,

Judson H. Whitman

North Side Samples are from G. G. Claim
South Side Samples are from Poney-8 Claim
R. D. Harris.

FILE COPY

LEE DOWNEY
P. O. BOX 8
OFFICE 100 - 101 DOWNEY BLDG.
CARLSBAD, NEW MEXICO

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 7 1958
DATE

February 17, 1958

Mr. Judson H. Whitman
Michigan Chemical Corporation
Box 481
Golden, Colorado

Dear Mr. Whitman:

In reply to your letter of February 13, 1958, I have been studying the returns of the analytical results on the head, concentrates, and tails sample of which we sent to you for evaluation. This particular material was run on an improvised uranium upgrader and as the results show, it was not satisfactory.

In answer to your question as to what concentration process that we used on original samples, the method would be as follows: a magnetic separation with a rotating field separator designed by Carpco Engineering and Research Company. We will immediately return and do our future work on this previous process of Carpco's. For your information, this equipment produces a concentrate with a 10 to 1 concentration ratio of 10 percent ThO_2 or better in the concentrate with a recovery of 96.4 percent of the head sample; all of this work being done on what we class as basically 1 percent of thorium oxide in the raw ore. The results showed on the samples per your letter of February 13th were very disappointing and yet since we know where the answer lies and that we can bring back to our original figures and are now sufficiently far enough along on our lab work, we are also in the planning stag of setting up some sort of a milling process and equipment to accomplish the handling of a minimum of 50 tons of raw ore per day.

In the very near future I anticipate being in Denver and after you have had time to give this some thought, if it is desirable with you, I could personally contact you in Golden and more thoroughly discuss the situation there if this meets with your approval.

Thanking you, I am

Very truly yours,

Lee Downey

LD:kem

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/18	Ching	700
4/18	Ellis	700
"	Johnson	110
"	[illegible]	110
		220
		225

APR 18 1958

Hon. Clinton P. Anderson
United States Senate
Washington 25, D. C.

Re: Docket No. DMEA-4792
(Thorium and uranium)
Atomic Minerals Corporation
Abo, et al., Claims
Lincoln County, New Mexico

Dear Senator Anderson:

Thank you for your letter of April 17, with attached copy of a telegram from Atomic Minerals Corporation. We shall be looking for the assay certificates mentioned in the telegram.

Sincerely yours,

[illegible] (for)
Administrator

MChing/izm 4-18-58

cc: Mr. Ching
Admr.'s Reading File
DMEA FT Reg. 3 (2) w/cc's of incoming
DCCO
MR (2)
DL

PRS 9011

8623

HARRY FLOOD BYRD, VA., CHAIRMAN
ROBERT S. KERR, OKLA.
J. ALLEN FREAR, JR., DEL.
RUSSELL B. LONG, LA.
GEORGE A. SMATHERS, FLA.
CLINTON P. ANDERSON, N. MEX.
PAUL H. DOUGLAS, ILL.
ALBERT GORE, TENN.
EDWARD MARTIN, PA.
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RALPH E. FLANDERS, VT.
GEORGE W. MALONE, NEV.
FRANK CARLSON, KANS.
WALLACE F. BENNETT, UTAH
WILLIAM E. JENNER, IND.

ELIZABETH B. SPRINGER, CHIEF CLERK

United States Senate

COMMITTEE ON FINANCE

April 17, 1958

PRS
APR 17 1958 9011

TO: MDM	
REPLY TO BE PREPARED BY:	MDM
FOR SIGNATURE OF:	MDM
COPY OF LETTER FURNISHED	
MR DL	
SEND REPLY COPY TO ABOVE	

Cross ref.
PRS 7002

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

Dear Mr. Mittendorf:

I have received the attached copy of telegram from Mr. R. D. Harris, Atomic Minerals Corporation, Carlsbad, New Mexico, sent in response to my inquiry concerning assay certificates on ore in new cuts and excavations, and which you requested of the Corporation in your letter of March 6. It is self-explanatory and is transmitted for your information.

Sincerely yours,

Clinton P. Anderson

OFFICIAL FILE COPY
DMEA
RECEIVED APR 18 1958
DATE CODE
4/18 C 220
700

CPA-VLFf

DOMESTIC SERVICE	
Check the class of service desired; otherwise this message will be sent as a fast telegram	
TELEGRAM	
DAY LETTER	
NIGHT LETTER	

$ S E

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

1211 (4-55)

INTERNATIONAL SERVICE	
Check the class of service desired; otherwise the message will be sent at the full rate	
FULL RATE	
LETTER TELEGRAM	
SHORE-SHIP	

NO. WDS.-CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED

Send the following message, subject to the terms on back hereof, which are hereby agreed to

C O P Y

1958 APR 16 PM 10 51

OB229 LE 542
LCSA057 LONG NL PD-CARLSBAD NMEX 16-

SENATOR CLINTON P ANDERSON USS-
US SENATE OFFICE BLDG WASHDC-

THANK YOU FOR YOUR TELEGRAMS WE ORIGINALLY THOUGHT THE ASSAYS FOR THE DMEA WERE OF NO SIGNIFICANCE DUE TO THEIR INCONSEQUENCE ON THE ORIGINAL APPLICATION. WE ENCLOSED CHEMICAL ANALYSIS INFORMATION FURNISHED US BY MICHIGAN THORIUM AND RARE EARTH FEELING THIS WOULD SUFFICE DUE TO FACT DMEA TEAM WILL SECURE THEIR OWN SAMPLES AND ANALYSIS DURING THEIR INSPECTION OF THE PROPERTIES. WE WERE ABLE TO CHECK THE ORE QUALITY DURING EXPLORATION BY HAVING ESTABLISHED A CORRELATION OR NORM BETWEEN PREVIOUS CHEMICAL ANALYSIS AND RADOMETERIC DETERMINATIONS OF THE SAME SAMPLES OF ORE AND APPLYING THIS EQUIVALENT TO NEW SAMPLES. WE HAVE ADDITIONAL CHEMICAL ESSAYS IN THREE COMMERCIAL LABORATORIES AT PRESENT AND WILL FORWARD THEM IMMEDIATELY TO THE DMEA UPON RECEIPT -

R D HARRIS ATOMIC MINERALS CORP-

ALL MESSAGES TAKEN BY THIS COMPANY ARE SUBJECT TO THE FOLLOWING TERMS:

To guard against mistakes or delays, the sender of a message should order it repeated, that is, telegraphed back to the originating office for comparison. For this, one-half the unrepeated message rate is charged in addition. Unless otherwise indicated on its face, this is an unrepeated message and paid for as such, in consideration whereof it is agreed between the sender of the message and the Telegraph Company as follows:

1. The Telegraph Company shall not be liable for mistakes or delays in the transmission or delivery, or for non-delivery, of any message received for transmission at the unrepeated-message rate beyond the sum of five hundred dollars; nor for mistakes or delays in the transmission or delivery, or for non-delivery, of any message received for transmission at the repeated-message rate beyond the sum of five thousand dollars, unless specially valued; nor in any case for delays arising from unavoidable interruption in the working of its lines.

2. In any event the Telegraph Company shall not be liable for damages for mistakes or delays in the transmission or delivery, or for the non-delivery, of any message, whether caused by the negligence of its servants or otherwise, beyond the actual loss, not exceeding in any event the sum of five thousand dollars, at which amount the sender of each message represents that the message is valued, unless a greater value is stated in writing by the sender thereof at the time the message is tendered for transmission, and unless the repeated-message rate is paid or agreed to be paid and an additional charge equal to one-tenth of one per cent of the amount by which such valuation shall exceed five thousand dollars.

3. The Telegraph Company is hereby made the agent of the sender, without liability, to forward this message over the lines of any other company when necessary to reach its destination.

4. The applicable tariff charges on a message destined to any point in the continental United States listed in the Telegraph Company's Directory of Stations cover its delivery within the established city or community limits of the destination point. Beyond such limits and to points not listed in the Telegraph Company's Directory of Stations, the Telegraph Company does not undertake to make delivery but will endeavor to arrange for delivery by any available means as the agent of the sender, with the understanding that the sender authorizes the collection of any additional charge from the addressee and agrees to pay such additional charge if it is not collected from the addressee.

5. No responsibility attaches to the Telegraph Company concerning messages until the same are accepted at one of its transmitting offices; and if a message is sent to such office by one of the Telegraph Company's messengers, he acts for that purpose as the agent of the sender; except that when the Telegraph Company sends a messenger to pick up a message, the messenger in that instance acts as the agent of the Telegraph Company in accepting the message, the Telegraph Company assuming responsibility from the time of such acceptance.

6. The Telegraph Company will not be liable for damages or statutory penalties when the claim is not presented in writing to the Telegraph Company, (a) within ninety days after the message is filed with the Telegraph Company for transmission in the case of a message between points within the United States (except in the case of an intrastate message in Texas) or between a point in the United States on the one hand and a point in Alaska, Canada, Mexico, or St. Pierre-Miquelon Islands on the other hand, or between a point in the United States and a ship at sea or in the air, (b) within 95 days after the cause of action, if any, shall have accrued in the case of an intrastate message in Texas, and (c) within 180 days after the message is filed with the Telegraph Company for transmission in the case of a message between a point in the United States and a foreign or overseas point other than the points specified above in this paragraph; provided, however, that this condition shall not apply to claims for damages or overcharges within the purview of Section 415 of the Communications Act of 1934, as amended.

7. It is agreed that in any action by the Telegraph Company to recover the tolls for any message or messages the prompt and correct transmission and delivery thereof shall be presumed, subject to rebuttal by competent evidence.

8. Special terms governing the transmission of messages according to their classes, as enumerated below, shall apply to messages in each of such respective classes in addition to all the foregoing terms.

9. No employee of the Telegraph Company is authorized to vary the foregoing.

4-54

CLASSES OF SERVICE

DOMESTIC SERVICES

TELEGRAM

The fastest domestic service.

DAY LETTER (DL)

A deferred same-day service, at low rates.

NIGHT LETTER (NL)

Economical overnight service. Accepted up to 2 A. M. for delivery the following morning, at rates lower than the Telegram or Day Letter rates.

INTERNATIONAL SERVICES

FULL RATE (FR)

The fastest overseas service. May be written in code, cipher, or in any language expressed in Roman letters.

LETTER TELEGRAM (LT)

For overnight plain language messages, at half-rate. Minimum charge for 22 words applies.

SHIP RADIOGRAM

For messages to and from ships at sea.

DMEA Form 20
March 1958

Code 225
to file

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
Washington 25, D. C.

MEMORANDUM OF CONGRESSIONAL CALL

TO: Director, Division of Legislation (DL)

FROM: Administrator, DMEA C. O. Mittendorf (fw) 4/17/58
Signature Date

Call from Claude Wood, Senator Anderson's office Date of call 4/15/58 Time 11:30 a.m.

State below subject of call and conclusions or action taken.

On April 15, Mr. Claude Wood of Senator Anderson's office telephoned about the status of the Atomic Minerals Corporation application under Docket DMEA-4792.

He was told that we had not received an answer to our letter of March 6, requesting additional information.

Later in the day a letter from Mr. Lee Downey, with attached letter from D. M. Ferebee to Mr. Downey, was received.

The additional information submitted was not entirely satisfactory. When I called Mr. Wood on April 16 to advise him that we had finally received Mr. Downey's letter, I mentioned the fact that no assay certificates were submitted as we had requested. Mr. Wood volunteered to call Mr. Downey long distance to advise him to submit such assay certificates as soon as possible.

Michael Ching 4/17/58
Call received by Date

Prepare in duplicate when call is received. Send both copies to Administrator who will send original to DL and copy to DMEA Central Files. If call pertains to application or contract, copy will be recorded and filed in official docket.

34038

LEE DOWNEY
P. O. BOX 3
DOWNEY BUILDING
CARLSBAD, NEW MEXICO

OFFICIAL FILE COPY
DMEA
RECEIVED APR 14 1958
DATE | INITIALS | CODE
4/15 | C | 226
" | Ching | 700

April 12, 1958

United States Department of the Interior
Defense Mineral Exploration Administration
Division of Rare and Miscellaneous Metals
Washington 25, D.C.

Attn: Ernest Wm. Ellis, Director

Dear Mr. Ellis:

In reply to your letter of March 6, 1958 concerning Docket No. DMEA - 4792 (Thorium and Uranium) Abo et al claims, Lincoln County, New Mexico, please find enclosed Mr. Ferebee's answer in response to questions in your letter of March 6, 1958.

We are happy to furnish you the information that you have requested and feel that we are now in a position to answer most questions that might arise.

We wish to inform you that the values used in our computations were based on information received in letter form (assay certificates not issued) from Michigan Chemical Corporation, St. Louis, Michigan, their letter dated February 13, 1958 as follows:

1. North side GG group 1.6%
2. South side Pinie #8 4.2%

contained thorium oxide by chemical analysis. The above assays were received from representative samples procured by channel sampling across the mineralized zone.

Respectfully submitted,

Lee Downey

Lee Downey, President
Atomic Minerals Corporation

LD:kcm

Enclosure

D. M. FEREBEE
Consulting Geologist
ALBUQUERQUE, NEW MEXICO

443 GAVILAN PLACE, N.W. TELEPHONE 4-5215

April 7, 1958

DMEA
REC'D APR 14 1958

Mr. Lee Downey, President
Atomic Minerals Corporation
P.O. Box 3
Carlsbad, New Mexico

Dear Sir:

In answer to the request as set forth in Mr. Ellis' letter of March 16, 1958 requesting clarification of the additional work done to date in the Capitan Mountains, the following data is submitted for your information:

First, may I remark that it is encouraging to note that the DMEA inquiry would indicate that your thorium prospect in the Capitan Mountains has progressed from a questionable geological probability to a percentage calculation.

The radiometric maps as submitted with the progress report dated February 14, 1958 (plates 4 and 5) were made by the use of a Babble Counter which was calibrated using a standard 0.25 uranium sample. This counter was checked periodically during the course of the survey with this standard uranium sample and immediately prior to every reading shown on plates 4 and 5 the zero adjustment check method was used. The legend showing the relative U_3O_8 equivalent was purposely omitted from these maps in that the primary purpose of this survey was the delimiting of anomalous areas. These areas of high radiometric count were further emphasized by contouring the results of these

radiometric readings rather than simply noting them as plus and/or minus values on the maps. In processing this type of survey whose sole purpose was to delimit the anomalous areas for further investigation, quite naturally the largest radiometric anomalies were obtained by placing the geiger tube in contact with or in the immediate vicinity of the mineralized outcrops. This method of survey accounts to some extent for the extreme variations in the radiometric readings. May I take this opportunity to again emphasize my verbal statement to you that there is no indication that the mineralized zone extends to the width that is indicated by the contoured radiometric maps. This contouring was done solely to emphasize the continuity of the mineralized zones along relatively long horizontal distances.

In answer to the method by which direct field geiger counter readings were converted to U_3O_8 equivalent, the U_3O_8 calibration was made as stated above with a 0.25 standard uranium sample as purchased with the Babble Counter. While I have owned this Counter some four years, I have no reason to assume that the uranium content of this standard sample has deteriorated in this relative short length of time. You will recall that the two of us made certain radiometric determinations on the Pinie #8 claim using your Drill Hole Geiger Counter, Model No. 121, and my Babble Counter in the excavated trench on this claim. It was shown at that time that when calibrated the Babble Counter reading was 0.4 to 0.5 U_3O_8 equivalent and that the readings on the Drill Hole counter varied from 0.08 to 0.10 MR/hr. Using these field data and the subsequent chemical assays of the channel sample, on which one of the prospective purchasers of this product obtained chemical assays of 4.2 %

thorium oxide, it seems that for field investigation the multiplication factor of 10 as used in the geological report in converting from U_3O_8 equivalent readings to contained thorium is a valid and conservative field method of approximating the thorium content. Incidentally, this explanation of procedure was well covered on pages 4 and 5 of the Geological Report dated February 14, 1958.

While we were in Washington I specifically asked Mr. Ellis' engineering and geological staff what assay values had been obtained by the DMEA field inspection party, and the answer to this direct question was "Oh, about five tenths of one percent, or something like that". I was present when this field inspection party took these samples on Pinie #8 claim and you and I took samples in the very same manner and in the same place. One of our prospective purchasers obtained a thorium content of 4.2 percent by chemical assay on these samples. This relatively high assay confirms to some extent the other high assays which have been taken from this claim by various and sundry investigators of the area and there is certainly a wide differential between the DMEA assay results and that which has been done by various reliable independent assayers. I would like to suggest that Mr. Ellis have his people check the results of the "five tenths of one percent, or something like that" assays. Should the DMEA investigating staff be using a radiometric technique to determine the percent thorium oxide in the rocks from this prospect, then their results will be 1/5 to 1/10 of the value of chemical assays. Perhaps this accounts for the "Oh, about five tenths of one percent, or something like that" results.

I believe that the above information fulfills the request from Mr. Ellis.

Yours very truly,

D.M. Ferebee

D.M. Ferebee

DMF/a

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/5/58	Ching	700
"	Ellis	700
"	Gilmore	110
6	Mitterdorf	100
3/7	C	220
		700

MAR 6 1958

Mr. Lee Downey, President
Atomic Minerals Corporation
101 Downey Building
201 South Halagueno Street
Carlsbad, New Mexico

Re: Docket No. DMEA-4792
(Thorium and Uranium)
Abo, et al., Claims
Lincoln County, New Mexico

Dear Mr. Downey:

The supplemental information you submitted to our Denver office has been forwarded to us for consideration. A review of this material shows that it is not sufficiently complete to immediately justify a second field examination of your property. We require some additional data, and clarification of that already submitted, to justify such an examination.

We note that you have done some radiometric surveying, surface trenching, and core drilling since your visit to Washington. The results shown on the maps and diagrams submitted are not clear to us since they lack legends and explanations. For instance, Plates 4 and 5 are each labeled Surface Radiometric Map, but there is no explanation of the values on the maps which range all the way from .07 to 170. Do these figures represent MR/hr, % eU_3O_8, or thorium content resulting from the use of the factor 10 as described in Mr. Ferebee's report?

Did not answer.

In connection with the above-mentioned factor, it is requested that you supply us with the chemical assays, radiometric readings, and calculations which were used in its determination.

1 assay 4.2% Calibrated reading 0.4 to 0.5 eU_3O_8

Referring to Plates 8, 12, 13, and 14, please advise how the direct readings on the 0.04 scale were converted to eU_3O_8 percentages.

2nd Counter reading .08 to .10

In view of the fact that you completed at least four core drill holes on the Pinie No. 8 and GG No. 2 claims, and excavated five trenches across a mineralized zone on the GG No. 2 claim, we assume that representative samples were taken

8623

in all cases and chemically assayed for thorium content. You will recall that this type of testing was suggested by us as most preferable at our meeting in Washington. If our assumption is correct, please send us copies of all assay certificates and describe the manner in which the samples were taken.

We are requesting the foregoing information so that a clear picture of the results of your latest work can be obtained. Then, if a field examination is scheduled, the field examiners will have all the facts and will be able to do a better job of examination.

We will continue to process your application upon receipt of the information requested.

Sincerely yours,

Ernest Wm. Ellis, Director
Division of Rare and
Miscellaneous Metals

MChing/gla
3-5-58
cc to: Admr.'s Reading File
THKiilsgaard, 5224
Mr. Ching
DMEA Field Team, Region III (2)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/5/58	Ching	700
"	Ellis	700
"	Johnson	110
6	Mittendorf	100
		220
		700

MAR 6 1958

Hon. Clinton P. Anderson
United States Senate
Washington 25, D. C.

Re: Docket No. DMEA-4792
(Thorium and uranium)
Atomic Minerals Corporation
Abo, et al., Claims
Lincoln County, New Mexico

Dear Senator Anderson:

Your letter of February 24, 1958, to Mr. J. W. Townsend, regarding the subject property, has been brought to my attention.

You will recall that by a letter, dated October 21, 1957, I advised you that the original application for exploration assistance had been denied after careful consideration of all the available information on the property.

The additional information submitted by Mr. Lee Downey has recently been forwarded to this office from Denver. It is now under study by our engineers and geologists. A preliminary review indicates that the supplemental information is not sufficiently complete to immediately justify a second field examination. We will require some additional data, and clarification of that already submitted, to justify such an examination. Furthermore, if an examination is scheduled the field examiners will do a better job if the preliminary information is complete. We are writing to Mr. Downey accordingly.

If you desire additional information on this application, please advise me.

MChing/gla
3-5-58

Sincerely yours,

G. O. Mittendorf (for)
Administrator

cc to: Admr.'s Reading File
Secretary's ReadingFile
MR (2) DL DCCO
J. H. East, Jr., Regional
Director, Bur. of Mines, Region III
DMEA Field Team, Region III (2)
Mr. Ching

PRS 7002

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

OFFICE OF
REGIONAL DIRECTOR

224 NEW CUSTOM HOUSE
DENVER 2, COLORADO

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 4 1958

DATE	INITIALS	CODE
3/4	C	220
"	Chung	700

February 27, 1958

PRS
MAR - 4 1958 7002

TO: MDM	
REPLY TO BE PREPARED BY:	MDM
FOR SIGNATURE OF:	MDM
COPY OF LETTER FURNISHED	
MR DL	
SEND REPLY COPY TO ABOVE	

Mr. C. O. Mittendorf
Administrator
Defense Minerals Exploration
Administration
Interior Building
Washington 25, D. C.

Dear Mr. Mittendorf:

Attached is a photostat of a letter received from Clinton P. Anderson, Senator from New Mexico, regarding DMEA Docket 4792, Atomic Minerals Corporation.

We deemed it advisable for you to handle this matter under the existing conditions.

Very truly yours,

J. H. East, Jr.
Regional Director, Region III

Attachment

HARRY FLOOD BYRD, VA., CHAIRMAN
ROBERT S. KERR, OKLA.
J. ALLEN FREAR, JR., DEL.
RUSSELL B. LONG, LA.
GEORGE A. SMATHERS, FLA.
CLINTON P. ANDERSON, N. MEX.
PAUL H. DOUGLAS, ILL.
ALBERT GORE, TENN.
RICHARD MAYNE, PA.
JOHN J. WILLIAMS, DEL.
RALPH E. FLANDERS, VT.
GEORGE W. MALONE, NEV.
FRANK CARLSON, KANS.
WALLACE F. BENNETT, UTAH
WILLIAM E. JENNER, IND.
ELIZABETH B. springer, CHIEF CLERK

United States Senate

COMMITTEE ON FINANCE

February 24, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 4 1958

DATE	INITIALS	CODE

DMEA
DEPARTMENT OF THE INTERIOR
FEB 27 1958
REGION III
DENVER, COLORADO

Mr. J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Dear Mr. Townsend:

I have just received a copy of Mr. Lee Downey's letter to you dated February 18, submitting additional information in connection with DMEA Docket 4792, Atomic Minerals Corporation, loan application.

I would appreciate your advising me whether or not your field survey has been made and when this is submitted to the Washington office of Defense Minerals Exploration Administration.

Your past cooperation and help on this is very much appreciated.

Sincerely yours,

Clinton P. Anderson

CPA:cwc

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

OFFICE OF
REGIONAL DIRECTOR

224 NEW CUSTOM HOUSE
DENVER 2, COLORADO

February 27, 1958

Hon. Clinton P. Anderson
United States Senate
Washington, D. C.

Dear Senator Anderson:

This will acknowledge receipt of your letter, dated February 24, addressed to Mr. J. W. Townsend, Alternate Acting Executive Officer, DMEA Field Team, Region III.

We are forwarding your letter to Mr. C. O. Mittendorf, Administrator, Defense Minerals Exploration Administration, Washington, D. C., and you will hear from him in the near future.

Thank you for your interest in this matter.

Sincerely yours,

Original signed by
J. H. EAST, Jr.

J. H. East, Jr.
Regional Director, Region III

Copy to:
C. O. Mittendorf

IN REPLY REFER TO:

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

March 3, 1958

Memorandum

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of supplement to application, DMEA 4792 (thorium-uranium) Atomic Minerals Corporation, Abo et al claims, Lincoln County, New Mexico

The applicant has supplemented his original application with the results of some surface trenching and core drilling. Several maps and diagrams are submitted that show the latest work.

The maps and diagrams are expertly drafted but that appears to be their only virtue. It is difficult to obtain much usable data from them. The main trouble is that the maps lack legends and explanations. Plate 5, for instance, is labeled Surface Radiometric Map but there is no explanation of the values on the map which range all the way from 0.09 to 50. It is not possible to tell, from the diagrams, how the applicant obtains U_3O_8 assays from his drill hole probe results.

The applicant contends that his trenching and drilling has uncovered a continuous mineralized zone, but he does not submit assays from samples from the property. He has not submitted logs of the core drill holes or assays from any core samples.

I believe the applicant should be asked to supplement his application further. It seems advisable to ask him for at least, perhaps, the items mentioned above. After the additional data are received, a re-examination by the Field Team may be necessary.

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 4 1958

DATE	INITIALS	CODE
3/4	C	220
"	Chas	700

W. P. Williams

W. P. Williams

MEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/29	Ching	700
10/30	Ellis	200
		225

October 29, 1957

Memorandum

To: The Files

From: Michael Ching, Mining Engineer and
Ernest Wm. Ellis, Director
Division of Rare and Miscellaneous Metals

Subject: Conferences with Applicant Oct. 28 & 29, 1957
Docket No. DMEA-4792 (Thorium and uranium)
Atomic Minerals Corporation
Abo, et al., Claims
Lincoln County, New Mexico

On Friday, October 25, 1957, Mr. Claude Wood of Senator Anderson's office telephoned regarding the subject application which had been denied by letter, dated October 18. He apparently was surprised and disappointed because of the denial and asked the reason for it. I replied that we had written a letter to Senator Anderson, with a copy addressed to his Albuquerque Office, explaining the action. Mr. Wood said he had not seen the letter.

Mr. Wood stated that the Applicant wished to come to Washington to discuss the proposed project. I replied that we were always willing to talk with the Applicant, but that the expense of bringing several persons to Washington from New Mexico to discuss the project would probably not be worthwhile since we already had the essential information regarding the property.

Mr. Wood checked with the Applicant and called back to state that the Applicant insisted on coming to Washington; whereupon we agreed on a conference at 2:00 p.m., on October 28.

Present at the conference on October 28 were: Lee Downey, President of the Applicant company; Mr. Ferebee, Geologist; a Dr. Harris; Mr. Wood; Mr. Ellis; and the writer. A long discussion, during which the Government's findings and requirements were explained, failed to satisfy the Applicant that the denial was justified. Applicant's main argument was that it had been working on the property for years and was satisfied that the showings were sufficient to meet all DMEA criteria for an exploration project, and that the Government examiners had spent only a few hours examining the property, a period of time insufficient to adequately appraise its potential. Mr. Ferebee, the Applicant's Geologist, had a geological theory to support his contention that the mineralized

breccia veins or faults would become wider and probably richer with depth. However, our suggestion that limited drilling or sinking to prove this theory be done by the Applicant was not acceded to.

A second meeting was arranged for October 29, so that W. P. Williams, USGS, could be present. Mr. Williams discussed the property by long distance with W. L. Emerick, USGS, one of the field examiners, prior to the meeting.

At the second meeting no progress was made. The Applicant refused to concede that the Government was justified in denying the application on the basis of the available information. Mr. Wood appeared to back this attitude. No further action was scheduled.

Michael Ching

Michael Ching

P.S.

Following the meeting of October 29, Mr. Wood of Senator Anderson's Office asked to talk with the undersigned. We talked for a few minutes and Mr. Wood stated he thought he would recommend to the Applicant that it do a limited amount of additional work but he did not wish to so recommend the work if we were determined not to have the field examiners take a second look. I assured him that we could hardly refuse to re-examine the property if additional work revealed information that was not presently available and which enhanced the possibilities of a worth while project. This assurance was in line with our two previous meetings with the Applicant's representatives.

Ernest Wm. Ellis

Ernest Wm. Ellis

MChing/EWEllis/izm 10-29-57
cc: Mr. Ching
Mr. Ellis

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/18	Ching	700
10/18	Ellis	700
10/21	Johnson	110
	Mittendorf	100
10/21	C	220
		225

OCT 21 1957

Hon. Clinton P. Anderson
United States Senate
Washington 25, D. C.

Re: Docket No. DMEA-479
(Thorium and uranium)
Atomic Minerals Corporation
Abo, et al., Claims
Lincoln County, New Mexico

Dear Senator Anderson:

Your letter of October 14, 1957, regarding the subject application, was received shortly after the report of examination on the property was reviewed by this office.

We appreciate the Applicant's offer to come to Washington to clarify any points that are in doubt. However, no such trip will be necessary, since the information available to us was sufficient to enable us to make a definite decision regarding the application. A careful study of such information indicated that the probability of disclosing significant ore reserves was not sufficiently promising to justify Government participation in an exploration project. Consequently, on October 18, we advised the Applicant that its application for exploration assistance was denied.

We found that the uranium content of the deposit is insignificant and that anomalous radioactivity is due almost entirely to the thorium present. Mineralization is associated with breccia veins, joints, and fractures in quartz monzonite. In general, such occurrences were found to be low in grade, limited in extent, widely scattered, and separated by large expanses of barren country rock. It is unlikely that increased mineralization will be found laterally or with depth.

If you desire additional information on this application, please advise me.

Sincerely yours,

C. O. Mittendorf (for)
Administrator

cc: Hon. Clinton P. Anderson
Albuquerque, New Mexico

MChing/izm 10-18-57
cc: Mr. Ching
Admr.'s Reading File
THKillsgaard, 5224
MR.
DL
DCCO
DMEA FT Reg. 3 w/2cc's of incoming letter

PRS 2553
(This also clears PRS 1918)

8623

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 17 1957
DMEA

PRS
OCT 17 1957 2553

TO: MDM	
REPLY TO BE PREPARED BY:	MDM
FOR SIGNATURE OF:	MDM
COPY OF LETTER FURNISHED	
MR DL	
SEND REPLY COPY TO ABOVE	

HARRY FLOOD BYRD, VA., CHAIRMAN
ROBERT S. KERR, OKLA. EDWARD MARTIN, PA.
ALBERT GORE, TENN. WILLIAM E. JENNER, IND.
ELIZABETH B. SPRINGER, CHIEF CLERK

United States Senate

COMMITTEE ON FINANCE

October 14, 1957

307 Federal Building
Albuquerque, N. M.

Mr. C. O. Mittendorf
Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington, D. C.

Dear Mr. Mittendorf:

Reference is had to DMEA-4792 (thorium-uranium) application of Atomic Minerals Corporation. The officers of this Corporation have been in touch with my office recently and expressed appreciation for the early examination made on their property. I, too, appreciate the manner in which this was expedited.

I doubt that you have received the field report as of this date; however, I wanted to let you know that the applicants have advised me they will gladly come to Washington at any time if there is any additional information needed or if there are any points that need clarification. I would appreciate it if I could be advised when the report from the field team is received. Also, if you can indicate an approximate time within which the application will be acted on, please advise me.

In writing me during the congressional recess, you may write my Washington office and send a copy to me at 307 Federal Building, Albuquerque, New Mexico.

Sincerely yours,

Clinton P. Anderson

CPA:lms

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/17	Ching	700
"	Ellis	700
10/18	Selfridge	130
"	Johnson	110
"	Mittendorf	08
10/21	GB	220
		700

Mr. Lee Downey, President
Atomic Minerals Corporation
101 Downey Building
201 South Halagueno Street
Carlsbad, New Mexico

OCT 18 1957

Re: Docket No. DMEA-4792
(Thorium, uranium)
Abo, et al., Claims
Lincoln County, New Mexico

10/18 Lamb 130
10/18 Kiilsgaard 130

Dear Mr. Downey:

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

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

Careful study of all our information, although noting some thorium and uranium mineralization on your property, indicates that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Mittendorf (fw)
Administrator

MChing/gla 10-17-57
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Mr. Ching
DMEA Field Team, Region III (2)

8623

To 700: The DCCO has
cancelled this PRS1918,
but he has asked
that a copy of letter
to Sen. Anderson
stating action taken
on this application
be sent to DCCO
marked,
"To clear PRS1918"

Dolan 9/27

DOCKET COPY

Ching

Oct. 18, 1957

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-4792

Commodity: Thorium and uranium

Applicant: Atomic Minerals Corporation
101 Downey Building
201 South Halagueno Street
Carlsbad, New Mexico

Property: 126 unpatented lode mining claims, Abo, Lajdale, Eagle, et al., claims, composing the North Group, South Group, and East Group, and situated in Tps.7, 8, and 9 S., Rs. 15, 16, and 17 E., N.M.P.M. & B., Lincoln County, New Mexico. Applicant controls the property through a Net Profits Contract, dated June 21, 1957.

Date of application: July 13, 1957.

Amount of application: $853,587.50

Referred to Region III: July 29, 1957
Field Examination made: September 12, 1957
Field Team Report received: October 10, 1957

Work Proposed: Excavate a series of bulldozer trenches along indicated zones of mineralization. Excavate crosscut trenches as required. Drill and blast as required to depth of 35 feet in all trenches. Rotary and diamond core drill from the trenches to additional depths of 50 to 100 feet.

Estimated Costs:

Labor, supervision, technical services	$136,575.00
Bulldozing, 6,000 hrs. @ $22.50/hr. (50,000 cu.yds.)	135,000.00
Exploration drilling (3,000 hrs. @ $70.00/hr. (32,000 feet)	210,000.00

Estimated Costs (contd):

Blast hole drilling:

Deep drilling, 2000 hrs. @ $35.00/hr.	$70,000.00	
Shallow drilling, 4,000 hrs. @ $7.00/hr.	28,000.00	$ 98,000.00
Explosives		101,475.00
Miscellaneous expenses		61,200.00
Contingencies @ 15%		111,337.50
Total		$853,587.50
Government participation @ 75%		$640,190.62

Field Team Report: October 1, 1957 - T. M. Romslo, USBM
W. L. Emerick, USGS

Thorium and uranium mineralization on the subject property is associated with widely scattered breccia veins and joints and fractures in quartz monzonite. The breccia veins range in width from less than an inch to 2 feet because of pinching, swelling and branching of the veins. Mineralized joints and fractures are generally no greater than knife-blade in thickness. All veins, joints and fractures are tight.

Anomalous radioactivity is due almost entirely to the thorium present, and is associated with hematite or limonite in the form of a thin crust at the upper and lower contacts of the breccia veins, or as filling in the joints and fractures. The main part of the breccia veins and the surrounding quartz monzonite is barren of mineralization.

The uranium content of the deposits is insignificant. Thorium values in the most highly mineralized deposits range from 0.14% to 0.54% ThO_2, but are not uniformly distributed laterally or down dip. Deposits with significant mineralization are locally distributed and separated by large expanses of barren country rock. Increased mineralization laterally or with depth is improbable.

The Applicant has constructed trails, excavated numerous pits and trenches, drilled 2 shallow diamond drill holes, and conducted metallurgical testing of samples. Some of the best showings in the pits and trenches were checked by the examiners. These included trenches on the Lajdale No. 1, Monzo No. 2, and Pinie No. 8 claims in the South group and pits on the G.G. No. 2, Paul, Eagle No. 1, and Eagle No. 9 claims in the North group. The East group was not examined because the Applicant stated that occurrences there were less typical and less favorable than those of the other two groups. Hematite crust and filling along the vein contacts and joints showed Geiger counter readings of as much as 5 times background, but the average reading was 2 to 3 times background.

Five channel samples ranging from 3 inches to 2 feet were taken at the best exposures. Radiometric assays showed eU_3O_8 percent ranging from 0.07 to 0.14 and $eThO_2$ percent ranging from 0.14 to 0.54.

The known deposits are small, widely scattered and low grade. Potential reserves of thorium and uranium are insignificant. Denial of the application is recommended.

Commodity Group Comments:

U. S. Bureau of Mines - James Paone - October 14, 1957.

Agrees with the Field Team and advises denial of the application.

U. S. Geological Survey - W. P. Williams - October 16, 1957

Concurs with the findings of the Field Team and recommends denial of the application.

Division of Rare and Miscellaneous Metals - Michael Ching, October 16, 1957

Mineralization is limited to small tight breccia veins and joints and fractures. Assays of these limited deposits are not impressive. There appears to be no possibility of finding large, uniform deposits of thorium on the property. The Applicant's proposed program and costs are excessive in every respect.

Conclusions and Recommendations:

The chances of making a significant discovery of either uranium or thorium on this property are poor. It is recommended that the application be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis

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

OFFICIAL FILE COPY
DMEA
IN REPLY REFER TO:
RECEIVED OCT 16 1957

DATE	INITIALS	CODE
10/17	B	220
11	[illegible]	700
Complete		

October 16, 1957

Memorandum

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of Report of Examination, DMEA 4792 (thorium-uranium) Atomic Minerals Corp., Abo, et al claims, Lincoln County, New Mexico

The examining team report that geologic conditions on the applicant's property are not favorable for the presence of important uranium and thorium ore deposits. They point out that anomalous radioactivity on the property is due mostly to thorium minerals. The thorium minerals, on the other hand, are found as scattered fillings in small joints and fractures. Furthermore, the examiners do not expect the amount of radioactive minerals to increase either laterally or with depth.

I agree with the recommendation of the examining team for denial of the application on the grounds that discovery of worthwhile ore deposits probably would not result from the proposed work.

W. P. Williams

W. P. Williams

OFFICIAL FILE COPY DMEA RECEIVED OCT 15 1957		
DATE	INITIALS	CODE
10/15	C	220
10/17	~~Chng~~	700

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

Date October 14, 1957

DMEA Docket No. 4792
DMEA Contract No.
Commodity Uranium-Thorium
Name of applicant Atomic Minerals Corp.
Name of property Abo, et al, Claims
Location of property Lincoln County, N. Mex.
Estimated cost of project $853,587.50

Memorandum ✓

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: James Paone, Bureau of Mines Member JP
Uranium Commodity Committee

Subject: Review of Field Team Report
(Application, Field Team Report, etc.)

1. Date of subject document: 10/7/57. 2. Date received by reviewer: 10/14/57

3. Prior reports on this property known to reviewer: Yes ☐ No ☐

4. Prior reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked yes above:

8. Factors needing special consideration:
   a. Location ☐
   b. Ownership ☐
   c. Evidence of mineralization ☐
   d. Geology ☐
   e. Proposed exploration method ☐
   f. Alternate exploration method ☐
   g. Costs ☐
   h. _____ ☐

9. Action advised:
   a. Obtain information from applicant ☐
   b. Refer to Field Team ☐
   c. Denial [x]
   d. Agree with Field Team [x]
      i. Consult with Mr. _____ at _____ AEC office.
   e. Disagree with Field Team ☐
   f. Suggest alternate plan ☐
   g. Request another examination ☐
   h. Approval ☐

10. Remarks: (Use back of page if necessary)

LA Form 7
(2-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/8	Ching	700
10/8	[illegible]	700
10/8	[illegible]	130
"	Johnson	110
"	Hutchinson	100
10/8	B	220
		700

OCT 8 1957

Department of the Interior

DMEA

14X4401(01) Revolving Fund, Defense Production Act, Interior, (Transfer to Office of Secretary)

T E L E T Y P E

E. N. HARSHMAN, ACTING EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 New CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

REURMEM OCTOBER 2 ATOMIC MINERALS CORPORATION

DOCKET 4792. DO NOT PREPARE ADDITIONAL MF-205 FORMS.

MChing/gla
10-8-57
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Mr. Ching
confirmation to Region III

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

October 7, 1957

OFFICIAL FILE COPY DMEA RECEIVED OCT 10 1957		
DATE	INITIALS	CODE
10/10	C	220
10/14	[illegible]	130
10/15	C	220
11	Chang	700

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA 4792 (Thorium-Uranium) Atomic Minerals Corporation (Abo, et al, Claims) Lincoln County, New Mexico

Enclosed are the original and two copies of the Joint Report of Examination on the subject property by T. M. Romslo, USBM, and W. L. Emerick, USGS.

Anamolous radioactivity was found by the field examiners to be due almost entirely to thorium mineralization in thin films along the walls of brecciated veins and along joints and fractures in the upper and lower contacts of the brecciated veins. Accordingly, they conclude that the probability for making a significant discovery is not sufficiently promising to justify Government participation. They recommend that the Applicant's work proposal be denied in which the Field Team concurs.

E. N. Harshman

E. N. Harshman
Acting Executive Officer

Reviewed by
DMEA OPERATING COMMITTEE
10-14-57
(date)

ON-SITE EXAM. REPORT

DMEA
DEPARTMENT OF THE INTERIOR
OCT 3 - 1957
REGION III
DENVER, COLORADO

Box 4126 University Station
Tucson, Arizona

October 1, 1957

TRANSMITTED
OCT 7 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: W. L. Emerick
T. M. Romslo

Through: E. N. Harshman

Subject: Docket No. DMEA-~~4249~~ 4792 (Thorium, Uranium), Atomic Minerals Corporation, Abo, et al, Claims, Lincoln County, New Mexico Joint Field Examination Report.

Enclosed are the original and nine copies of a joint field examination report on the above subject property, recommending denial of the application.

Also enclosed is the Routing Control Sheet for the Bureau of Mines copy of the application. The Survey copy of the application is being sent under separate cover to Mr. Harshman's office.

W L Emerick
W. L. Emerick, Geologist
U. S. Geological Survey

T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

Enclosures

cc: W. H. King (9)
E. N. Harshman
DMEA/TUC
W. L. Emerick

WLE:ms

Reviewed by
DMEA OPERATING COMMITTEE
10-14-57
(Date)

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DATE	INITIALS	CODE
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FOR UNITED STATES GOVERNMENT USE ONLY

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

TRANSMITTED
OCT 7 1957

DEFENSE MINERALS EXPLORATION ADMINISTRATION

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REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-4792 (Thorium-Uranium), Atomic Minerals Corporation, (Abo, et al, claims) Lincoln County, New Mexico

T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

W. L. Emerick, Geologist
U. S. Geological Survey

October 1, 1957

Reviewed by
DMEA OPERATING COMMITTEE
10-14-57

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Abo, et al claims in Lincoln County, New Mexico, were examined by the Defense Minerals Exploration Administration in connection with an application by the Atomic Minerals Corp., docket DMEA-4792, for aid in proposed explorations for thorium and uranium. The proposed exploration comprised extensive trenching and diamond drilling. Total cost of the work was estimated at $853,587.50.

Anomalous radioactivity was first reported in 1952 from the Capitan Mountains area presently held by the applicant. Shortly after a claim had been located on the initial discovery, work was discontinued when assay results showed that the high radioactivity was due almost entirely to thorium. Prospecting that was renewed in the summer of 1954 resulted in the discovery of a number of scattered thorium occurrences and the location of several hundred claims. Access roads were built and numerous shallow pits and trenches were excavated on the most promising properties. Much of this type of work was done by the applicant to May 1957 when work was stopped for financial reasons. Some of the properties also were investigated by the Atomic Energy Commission. Production from the area is believed to be confined to small amounts of ore that the applicant obtained for metallurgical tests.

Thorium and uranium mineralization is associated with widely scattered breccia veins and mineralized joints or fractures in a quartz monzonite. Trends of the breccia veins vary between northwest, northeast and east-west, and dips are of both high and low angle. Widths of

the breccia veins range from less than an inch to 1 or 2 feet, because of pinching, swelling and branching of the veins. Mineralized joints and fractures generally are no greater than knife-blade in thickness. All of the breccia veins and most of the joints and fractures are tight.

Anomalous radioactivity is due almost entirely to the thorium mineralization. Radioactivity in the breccia veins, joints and fractures is confined to a thin crust of hematite or limonite at the upper and lower contacts of the breccia vein, or in the filling of the joints or fractures. Thorium values at the most highly mineralized deposits range from 0.14 percent to 0.54 percent ThO_2 but are not uniformly distributed laterally or down the dip. The main part of the breccia veins, as well as the mass of quartz monzonite, is barren of mineralization. The uranium content is insignificant.

Potential reserves of thorium are insignificant because of local distribution, major amounts of barren country rock, and improbability of increased mineralization laterally or with depth.

Denial of the application is recommended.

DMEA-4792 (THORIUM-URANIUM), ATOMIC MINERALS CORPORATION
(ABO, ET AL, CLAIMS)
LINCOLN COUNTY, NEW MEXICO

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INTRODUCTION

An application by the Atomic Minerals Corp. for aid in exploration for thorium and uranium on the Abo, et al claims, Lincoln County, New Mexico was received by the Defense Minerals Exploration Administration July 22, 1957. It was given docket No. DMEA-4792, reviewed by the Operating and Uranium Commodity Committees and forwarded to the Field Team, Region III for a field examination if warranted and recommended.

The applicant proposed that mineralized zones be extensively explored by trenching and diamond drilling at an estimated total cost of $853,587.50.

The field examination, confined to 2 of 3 groups of claims, was made September 12, 1957 by W. L. Emerick, geologist, U. S. Geological Survey, and T. M. Romslo, mining engineer, U. S. Bureau of Mines. They were accompanied by the following officers of the corporation: Lee Downey, President; A. J. Brandon, Vice-President, R. Dale Harris, Secretary-Treasurer; and D. M. Ferebee, consulting geologist.

ACKNOWLEDGMENTS

Appreciation is extended to Mr. Harold D. Wolfe, Chief, Albuquerque Branch Office, Atomic Energy Commission, for making technical information of the area available to the field examiners.

LOCATION AND ACCESSIBILITY

The Abo et al claims, in areas designated as the South, North and East Groups, are situated in T. 7 and 8 S., R. 15 E.; T. 8 S., R. 16 E., and T. 8 and 9, R. 17 E., Lincoln National Forest, Lincoln County, New Mexico (fig. 1).

The South and North groups of claims that were examined are respectively about 9 and 11 air-miles northeasterly of Capitan, New Mexico, a village on U. S. Highway 380. Carrizozo, New Mexico, the nearest town, is 20 miles west of Capitan via the highway.

The South Group of claims may be reached from Capitan by driving 2.3 miles east on the highway and thence northeasterly on the graded dirt Capitan Pass road for 5.9 miles to its junction with a similar road that enters from the right. Proceed 1.8 miles on the latter road and then turn to the left and follow a winding unimproved road 1.5 miles to the prospect working near the common corner of Lajdale claims 1, 2, 5, and 6. The unimproved road is steep, rocky and impassable to other than 4-wheel drive vehicles. A guide is necessary to the other workings of this and the North group as they are reached only after following a maze of indistinct bulldozer roads and foot paths.

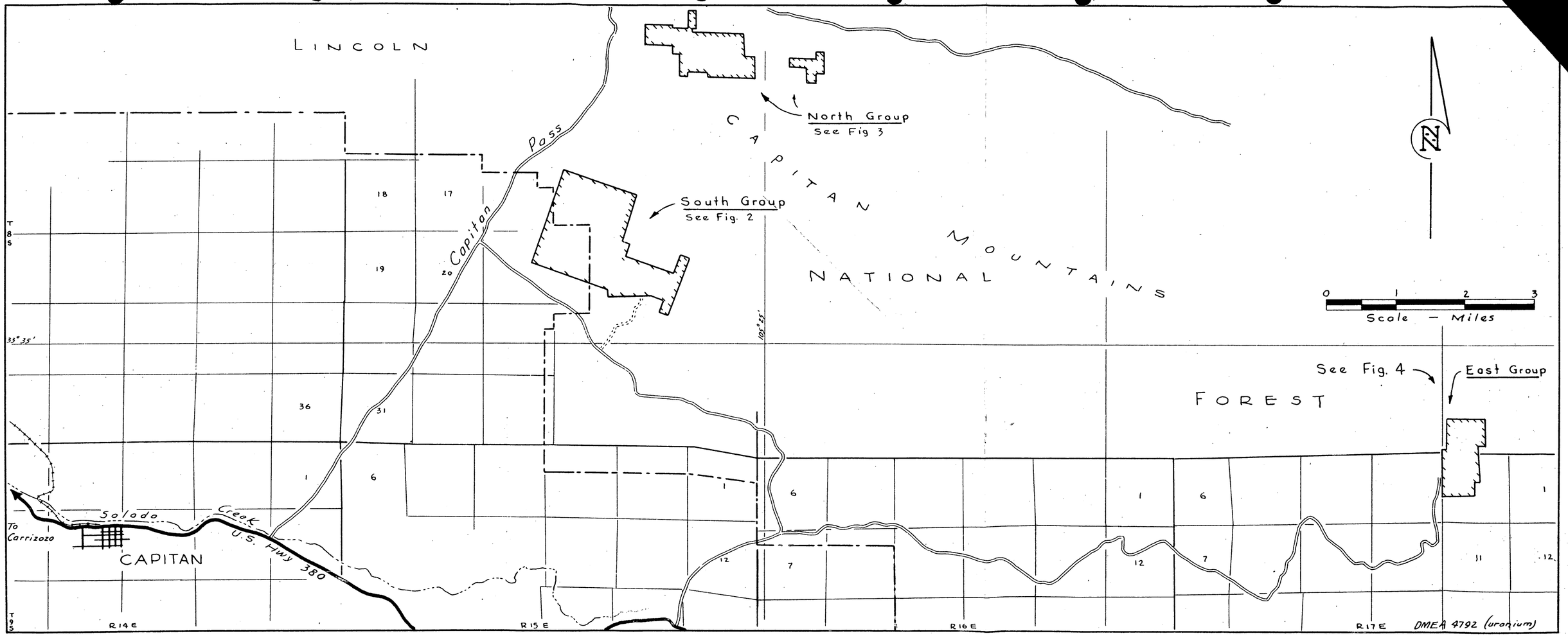

Fig. 1 Location map, Atomic Minerals Corp. Abo, et al Claims, Lincoln County, New Mexico

TOPOGRAPHY, PHYSICAL FEATURES AND CLIMATE

The Abo et al claims are situated at altitudes ranging from 6,000 to 8,000 feet on the northern and southern slopes of the east-west trending Capitan Mountain range. In general, the area of the North and South groups of claims comprises steep slopes with a few bold rock outcrops. Much of the area is covered with talus.

Vegetation is largely confined to forage grasses and oak trees of the lower altitudes and to pine trees, suitable for saw-mills, in the upper reaches.

Summers are mild and winters are not severe except for short periods at the highest altitudes.

Annual precipitation ranges from about 15 inches near the base of the mountains to as much as 25 inches near the crestline. Moderately heavy snowfalls can be expected at the higher altitudes during the winter.

HISTORY AND PRODUCTION

Glendon E. Collins[1/] said "Anomalous radioactivity was first reported in 1952 from the Capitan Mountains area, Lincoln County, in South-central New Mexico. The initial discovery, staked as the Silvertone Lode Claim (now the Monzo No. 2 Claim), was located on the southwest flank of the Capitan Mountains. This was first described by J. P. Hadfield in DEB-PRR-452. Assay results showed the

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1/ Collins, Glendon B., Thorium Occurrences in the Capitan Mountains Area, Lincoln County, New Mexico, U. S. Atomic Energy Commission, Technical Memorandum Report DAO-4-TM-1, 1956.

high radioactivity to be due almost entirely to thorium and private activity on the property was suspended. A renewal of private exploration in the summer and fall of 1954 lead to the discovery of a number of scattered thorium occurrences in the Capitan Gap area near the western end of the Capitan Mountains. Several hundred claims were staked and exploration work in the form of access roads and shallow prospect pits was done on the more promising properties. No ore has been shipped from this area to date."

"AEC work in the area has been confined to property examinations by R. M. Perhac, F. S. Boyd and T. I. Sharps of the Albuquerque Branch Office. In October and November, 1955, a careful field study was made of most of the known occurrences in the Capitan Gap area. This work included mapping and sampling of the more important deposits in an attempt to evaluate the thorium potential of the area."

Investigation of the property by the applicant was carried out for about 1 year to May 1957, when it was stopped for financial reasons. The work done comprised: Bulldozing of trails to mineralized outcrops, excavation of numerous pits and trenches, drilling of 2 shallow diamond drill holes, metallurgical testing of samples and surveying.

EXTENT AND OWNERSHIP OF THE PROPERTY

The applicant's property comprises 126 lode mining claims. Eighty of the claims comprise a single area known as the South Group (fig. 2), 26 of the claims comprise 2 areas known as the North Group (fig. 3), and the remaining 20 claims comprise an area known as the East Group (fig. 4).

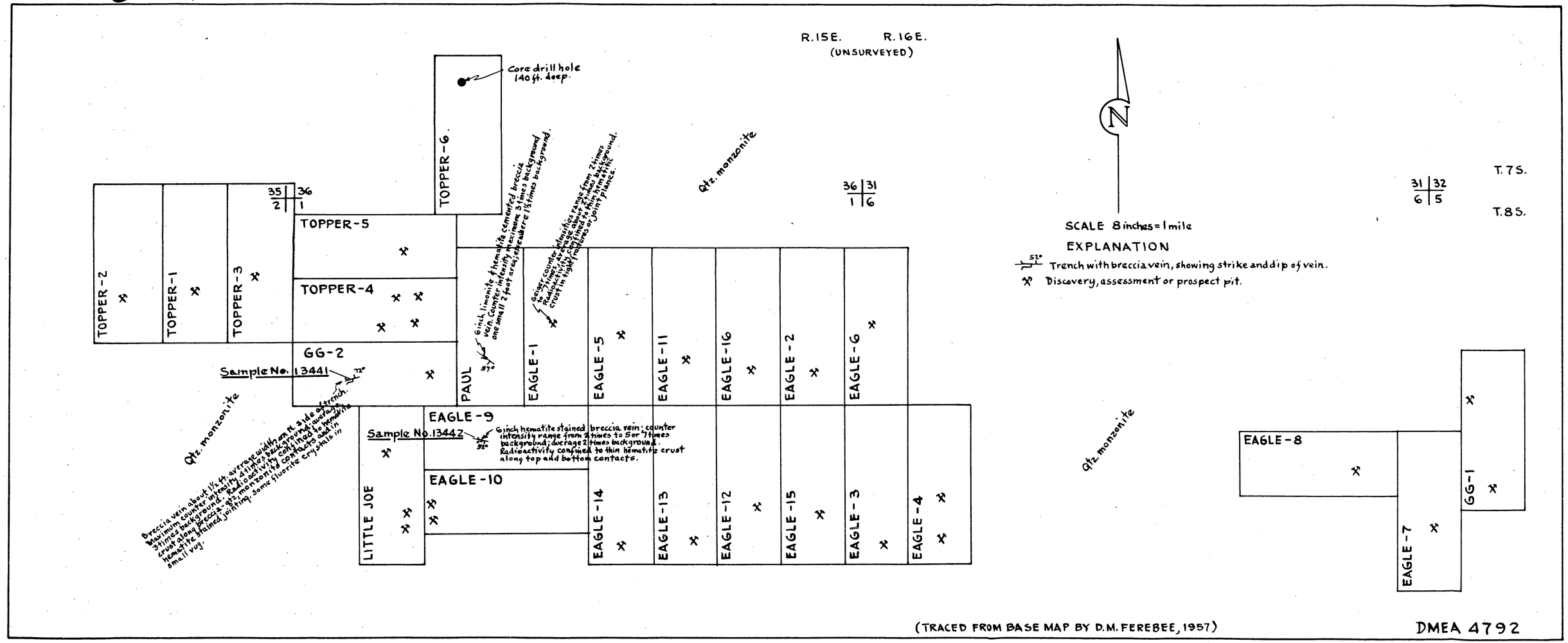

FIGURE 3.– CLAIM AND GEOLOGY MAP OF NORTH GROUP, ATOMIC MINERALS CORPORATION, LINCOLN COUNTY, NEW MEXICO.

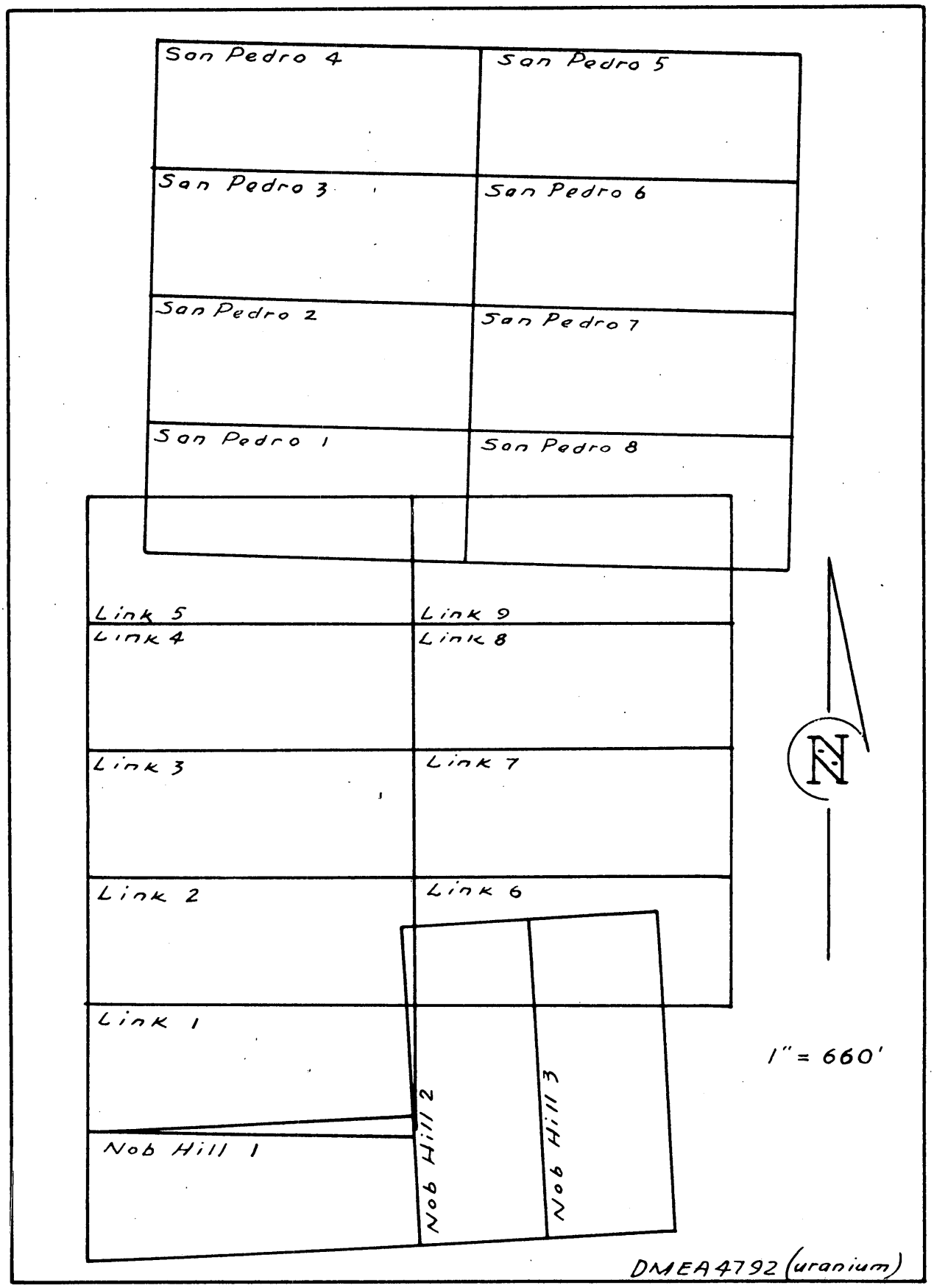

Fig 4 Claim map of East Group,
Atomic Minerals Corp.
Lincoln County, New Mexico

The Atomic Minerals Corporation, the applicant, holds all the 126 claims by conveyance of agreements between the various owners and either the Carlsbad Mineral Corp. or the Lee Downey Associates.

Principal officers of the Atomic Minerals Corp., Room 1, Downey Building, Carlsbad, New Mexico, are: Lee Downey, President; A. J. Brandon, Vice-President; and R. Dale Harris, Secretary-Treasurer.

PRESENT STATUS

The property is inactive and contains no mining or milling equipment.

The only building is a 10- by 30-foot cook and bunk house on the North Group of claims.

Mine workings are confined to a shallow pit or trenches at each of the mineralized zones.

GEOLOGY

The Capitan Mountains are an elongated, east-west, dome-shaped laccolith of probable quartz monzonite intruded into sedimentary rocks ranging in age from Permian to Lower Tertiary. Several uneroded remnants of Permian rocks are said to overlie the laccolith in places, but the sediments principally face the igneous mass as cuesta-like slopes with varying dips.

Thorium and uranium mineralization is associated with breccia veins and mineralized joints or fractures at widely scattered places in the quartz monzonite. Jointing seems to have controlled formation

of the breccia veins, which vary in trend from northwest, northeast, and east-west, depending upon locality[2/]. Dips of the breccia veins and joints are generally of high angle, about 50° to 75°, but dips of some were found to be around 25°. Widths of the breccia veins were found by the examining team to range from less than an inch to 1 or 2 feet, but averaged much less than 1 foot. Pinching and swelling of the breccia veins, and branching, accounts for the variable widths. There appears to be an en echelon arrangement of the breccia veins. Tracing of the breccia veins laterally for any great distance is difficult owing to covers of float and talus. Widely scattered joints and fractures, where mineralized, were generally not greater than knife-blade in thickness.

All of the breccia veins and most of the joints or fractures in the quartz monzonite are tight at the near surface exposures. In many cases the breccia veins and quartz monzonite have welded contacts, and it does not appear probable in this particular environment that any of the veins, joints or fractures open up with depth.

Where the contacts of the breccia vein and quartz monzonite are well-defined, a thin crust of hematite or limonite about knife-blade in thickness occurs. Fillings of joints or fractures going away from the breccia veins for short distances are also of hematite or limonite and of about the same thickness. The breccia veins are composed

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2/ Collins, G. E., Thorium occurrences in the Capitan Mountain area, Lincoln County, New Mexico: U.S. Atomic Energy Commission Tech. Mem. Rept. DAO-4-TM-1, 1956.

of rounded to subangular fragments of quartz monzonite in a cement of hematite and silica. Vugs filled with white to light violet-colored fluorite occur in places in the breccia veins.

The radioactivity of the breccia veins, joints or fractures was found by the field examiners to be confined to the thin crusts of hematite or limonite found at the upper or lower contacts of the breccia, or in the fillings in the joints or fractures. The thorium values in the crusts and fillings are not uniformly distributed laterally along the strike or down the dip of the veins, joints or fractures. Small local "hot" spots are characteristic. The main part of the breccia veins, as well as the quartz monzonite, are essentially barren of any thorium or uranium mineralization.

Several of the applicant's best showings in assessment pits and trenches were checked by the examining team. These included trenches on the Lajdale No. 1, Manzo No. 2, and Pinie No. 8 claims of the applicant's South group of claims (Fig. 2); and assessment pits on the GG-No. 2, Paul, Eagle No. 1, and Eagle No. 9 claims of the North group of claims (Fig. 3). The East group of claims was not visited by the examining team, inasmuch as the applicant stated the occurrences visited on the South and North group of claims were not only more typical of the occurrences but also more favorable than those on the East group.

On the Lajdale No. 1 (Fig. 2) claim the applicant had trenched along a breccia vein striking N. 70° E., and dipping 75° N.W. The breccia vein, composed of rounded to subangular fragments of quartz monzonite ranging in size from fractions of an inch to 2 or 3 inches, pinched and swelled over a short distance from a width of 1 foot at bottom of trench to 2 feet in width about waisthigh in trench, and upwards near the surface pinched and branched to stringers. Cementing material of the fragments was hematite, limonite and silica. Some calcite veinlets were present. Some slickensided and grooved surfaces were noted on old fracture planes. The highest geiger counter reading of about 5 times background was found for about 1 foot in the hematite crust along the upper contact of the vein, but the average reading for the rest of the vein contacts was about 3 times background. All of the breccia vein was not radioactive but appeared to have the radioactivity concentrated locally in parts of the hematitic crust along the upper and lower contacts. Rock on either side of the hematite crust registered no more than background.

On the Manzo No. 2 claim (Fig. 2) the applicant had dug a trench along highly sheared rock. No slickensides or grooves were visible on fracture planes. A thin breccia vein on this claim, ranging from a pinchout at the face of the trench to about 7 inches at its

cropout on the southeast surface side of the trench, strikes about N. 40° W. and dips 25° northeast. Contacts of the breccia vein and quartz monzonite were tight but included a thin hematite crust. The geiger counter gave a maximum reading of 5 times background, with an average of 2 to 2½ times background, along the upper contact. Readings slightly above background were obtained along the lower contact in a hematite crust. Readings on the geiger counter dropped to background in the center of the breccia vein and in the quartz monzonite above and below the vein. A breccia vein exposed in a second trench on this claim gave similar results with the geiger counter, inasmuch as the radioactivity, or thorium mineralization, was confined to a hematitic crust at the upper and lower contacts. In this trench it was noted that some mineralization, mainly hematite filling or films, took off along jointing for short distances away from the breccia vein.

Conditions similar to those found on the Lajdale No. 1 and Manzo No. 2 claims were found in most of the remaining sites visited by the examining team. Geiger counter readings, mostly averaging 2½ to 3 times background, were found in the other sites. Radioactivity, or thorium mineralization, was confined in all cases to the thin crusts of hematite, or limonite, along the vein contacts, or as knife-thick fillings in the joints or fractures branching away

from the breccia veins. In all the other sites, the main part of the breccia veins, as well as the quartz monzonite host rock, were essentially barren of mineralization.

The AEC sampled exposures on the applicants' Manzo No. 2 and Pinie claims but locations of the samples were not indicated[3/]. The samples taken on both claims were selected. Both radiometric and chemical assays showed the uranium content was not significant. Radiometric thorium determinations ranged from 0.37 percent to 5.07 percent $eThO_2$. Applicants' sampling indicated a thorium content for the area as high as 1.8 percent but the overall average for the area is probably between 0.5 and 1.5 percent thorium oxide.

Several samples were taken by the field examiners and the results of these samples with their locations (Figs. 2 and 3) are given below:

3/ Collins, G. E., op. cit., 1956.

Sample No.	Location	Radiometric *eU_3O_8%	rU_3O_8%	Radiometric *eThO_2%	Remarks
13438	Lajdale No. 1	0.14	<0.01	0.54	2 ft. channel sample across zone including 1-2 ft. breccia vein at face of trench.
13439	Manzo No. 2	0.13	0.01	0.52	1 ft. channel sample along strike of breccia vein.
13440	Pinie No. 8	0.19	0.01	0.37	2 ft. chip channel sample across radio-active zone formed of iron filled fractures.
13441	GG-2	0.10	0.06	0.14	2 ft. channel sample across zone containing about 1 ft. breccia vein.
13442	Eagle No. 9	0.07	0.02	0.20	Sample across 3-inch breccia vein.

*e - Equivalent U_3O_8 and ThO_2- Based on the natural radioactivity of the sample as compared to the radioactivity exhibited by a standard uranium or thorium source in equilibrium under the same geometry.

r - Equilibrium method - Uranium content calculated from the ratio of the beta and gamma counts.

RESERVES

Applicant stated during the field examination that the reserves indicated by the surface showings of mineralization were not significant, but he hoped, on the basis of tectonics, that the mineralization would materially increase with depth.

The AEC, after a study of the horizontal and vertical extent of the potential ore-bearing fracture zones on several properties, including two claims on one group of the applicants, concluded that the area had a very modest potential for thorium, and that mining on either the brecciated veins or joint fillings would be a selective operation dealing with small tonnages.

Owing to the widely scattered occurrences, limited extent and uneven distribution of the thorium mineralization, no reserve calculations were attempted by the field examiners.

CONCLUSIONS AND RECOMMENDATIONS

Anomalous radioactivity on the Abo et al claims is due almost entirely to thorium mineralization. It is intimately associated with a hematite or limonite crust that occurs at widely scattered places in quartz monzonite along the upper and lower contacts of tight, narrow and discontinuous breccia veins or as the filling of widely spaced weak joints and fractures.

Potential reserves of thorium in the individual deposits cannot be expected to be significant because (1) the thorium content of small local hot spots is low, (2) barren country rock constitutes all but a minor portion of the deposits, and (3) an increase in the degree or extent of mineralization in lateral or depth extensions of the deposits cannot be expected.

Denial of the requested aid in exploration of the Abo et al claims is recommended because the potential thorium reserves of the known small, low-grade deposits are insignificant.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

October 4, 1957

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Memorandum

To: Secretary to the Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4792 (Thorium-Uranium) Atomic Minerals Corporation (Abo, et al claims) Lincoln County, New Mexico

By memorandum of October 2, 1957, to your office, we forwarded one copy of a Mining Deed dated June 19, 1957, between E. J. Treat, Mary E. Treat, and Carlsbad Mineral Corporation, but failed to mention that it was being enclosed.

Please amend your records to include this instrument as a supplement to the original application.

E. N. Harshman

E. N. Harshman

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

October 2, 1957

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DMEA
RECEIVED OCT 7 1957
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Memorandum

To: Secretary to the Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 4792 (Thorium-Uranium) Atomic Minerals Corporation (Abo, et al Claims) Lincoln County, New Mexico

In response to our letter of August 28, 1957, the Applicant has submitted and we enclose the following:

1. Original and five copies of form MF-205 signed by owners of the Pinie Claims described therein.
2. Original and five copies of form MF-205 signed by owners of the G. G. Claims described therein.
3. Original and five copies of form MF-205 signed by owners of land described in the Mining Deed dated June 1, 1957, and recorded in Book 12, Miscellaneous Records, Pages 265-267.
4. Original and five copies of form MF-205 signed by owners of the Monzo Claims described therein.
5. Copy of Mining Deed dated September 1, 1957, between Lee Downey and Floriene (Florience ?) C. Downey and Carlsbad Mineral Corporation.
6. Copy of Mining Deed dated June 19, 1957, between T. Edsil Runyan, Rachel Runyan and Carlsbad Mineral Corporation.
7. Copy of letter dated September 23, 1957, from the Applicant which forwarded the above-mentioned items to this office.

Items 5 and 6 provide evidence which was previously lacking. We are assured by Item 7 that Carlsbad Mineral Corporation, all parties of the corporation known as "Lee Downey & Associates" and the net profit contract owners mentioned in Net Profits Contract dated June 21, 1957, will agree to sign Consent to Lien forms as soon as they are prepared by this office. Also by Item 7, the Applicant states the correct name of the Hungry Hill Claim which would now allow us to prepare the indicated Consent to Lien form.

However, by memorandum dated September 23, 1957, the Chairman Operating Committee, DMEA, was advised by this office that field examination of the subject property was made and that the report is in preparation recommending denial of aid. In view of this we question the propriety of preparing and forwarding to the Applicant additional sets of Consent to Lien forms at this time. Further, the Applicant anticipates no delay in obtaining the required signatures, in the event a contract be approved.

We will appreciate your teletype advice as to whether or not we should prepare the additional forms.

E. N. Harshman

E. N. Harshman
Acting Executive Officer

LEE DOWNEY
P. O. BOX 3
OFFICE 100 - 101 DOWNEY BLDG.
CARLSBAD, NEW MEXICO

DMEA
DEPARTMENT OF THE INTERIOR
OCT 2 - 1957
REGION III
DENVER, COLORADO

SEPTEMBER 23, 1957.

Mr. EN Harshman
Acting Executive Officer
DMEA Field Team, Region III
Denver, Colorado.

Re: Docket DMEA-4792 (Thorium & Uran.)
Atomic Min. Corp.
Lincoln, New Mexico.

Dear Mr. Harshman:

I am enclosing the information that you have requested in your letter of August 28,1957 as follows:

1. Mining deeds covering the following claims:
   The Nob Hill Nos. 1-3
   San Pedro group, No. 1-7
   Lee Mines, Nos. 1-3
   ABO claims, Nos. 1-49 (excluding 3,4,5,6, 11,12,13,14,17, and 18)
   Lucky Nos. 1-3
   Atom Nos. 1-4
   Rocky No. 1 claim

2. In reference to Item 4, in checking the records, I find that the copy of the Mining Deed is correct and that "Hungry Hill" and Hungry Hill No. 1 claim are one and the same and do refer to the same claim.

3. The four sets of consent to lien, Form MF-205, Consent to Lien & Subordination Agreement, have been signed by the various persons and I enclose the original and five copies.

4. The Carlsbad Mineral Corp. and all parties of the group known as "Lee Downey & Associates" plus the Net Profits Contract owners dated June 21, 1957, will agree to sign the consent to lien forms, just as soon as they are prepared for us.

Thanking you for your promptness in helping us to get the necessary required information for the completion of our application, I am

DMEA
RECEIVED 1957

Very truly yours

Lee Downey

Lee Downey, Pres.
Atomic Minerals Corp.
Box 3
Carlsbad, New Mexico.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2 Colorado

September 23, 1957

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Memorandum

To: Chairman, Operating Committee, DMEA

From: Alternate Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4792 (Thorium-Uranium) Atomic Minerals Corporation (Abo, et al claims) Lincoln County, New Mexico

Enclosed are the original and one copy of a letter from Senator Clinton P. Anderson, and two copies of our reply.

The weekly report from the Tucson Office, DMEA, dated September 20, 1957, states that the field examination of this property was made September 12, 1957, and that a report is in preparation recommending denial of aid.

J. W. Townsend

Enclosures

PRS
SEP 25 1957 1918

TO: MDM	
REPLY TO BE PREPARED BY:	MDM
FOR SIGNATURE OF:	MDM
COPY OF LETTER FURNISHED	
MR DL	
SEND REPLY COPY TO ABOVE	

Cancelled
9/27

HARRY FLOOD BYRD, VA., CHAIRMAN
ROBERT S. KERR, OKLA.
J. ALLEN FREAR, JR., DEL.
RUSSELL B. LONG, LA.
GEORGE A. SMATHERS, FLA.
CLINTON P. ANDERSON, N. MEX.
PAUL H. DOUGLAS, ILL.
ALBERT GORE, TENN.
EDWARD MARTIN, PA.
JOHN J. WILLIAMS, DEL.
RALPH E. FLANDERS, VT.
GEORGE W. MALONE, NEV.
FRANK CARLSON, KANS.
WALLACE F. BENNETT, UTAH
WILLIAM E. JENNER, IND.
ELIZABETH B. SPRINGER, CHIEF CLERK

United States Senate

COMMITTEE ON FINANCE

September 20, 1957

DMEA
DEPARTMENT OF THE INTERIOR
SEP 23 1957
REGION III
DENVER, COLORADO

RECEIVED
SEP 25 1957
D.M.E.A.

Mr. E. H. Harshman
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Dear Mr. Harshman:

Defense Minerals Exploration Administration here in Washington reports that field inspection of Atomic Minerals Corporation properties in New Mexico has been completed, and that a report on the survey is now in preparation.

If there is any way this report can be expedited so that it will reach Washington at an early date, it will be most appreciated.

Sincerely yours,

Clinton P. Anderson

Clinton P. Anderson

CPA:dkm

Official
~~EXTRA~~ COPY
DMEA
RECEIVED SEP 25 1957

DATE	[illegible]	CODE

224 New Customhouse
Denver 2, Colorado

September 23, 1957

Honorable Clinton P. Anderson
United States Senator
Washington, D. C.

Re: Docket DMEA-4792 (Thorium-Uranium)
Atomic Minerals Corporation
(Abo, et al claims)
Lincoln County, New Mexico

My Dear Senator Anderson:

This will acknowledge receipt of your letter dated September 20, 1957, requesting that the report of examination on the captioned property be expedited.

A field examination was made on this property September 12, 1957, and the report of examination is now in preparation. Please be assured that every effort will be made to expedite completion of the report of examination and that it will be forwarded to the Washington Office, DMEA, as soon as the report is received in this office.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

HMC:hmh

cc: Chmn. Op. Comm. (2))
Harshman)w/copy of Sen.
Romslo) C.P. Anderson's
Emerick)ltr. of 9/20/57
Docket)
Chron

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224 New Customhouse
Denver 2, Colorado

August 28, 1957

Mr. Lee Downey, President
Atomic Minerals Corporation
101 Downey Building
201 South Halagueno Street
Carlsbad, New Mexico

Re: Docket DMEA-4792 (Thorium-Uranium)
Atomic Minerals Corporation
(Abo, et al., claims)
Lincoln County, New Mexico

Dear Mr. Downey:

Enclosed are four sets of consent to lien, each set consisting of the original and six copies of Form MF-205, CONSENT TO LIEN and SUBORDINATION AGREEMENT, for signature by the persons whose names are listed on the reverse side thereon. The original and five signed copies of each set are to be returned to this office. The remaining copy of each set is for your file.

In addition to the sets of consent to lien enclosed, consent to lien will be required of:

1. Carlsbad Mineral Corporation as retainer of interest in that certain land described in Exhibit "A" of Net Profits Contract, executed January 29, 1957.

2. All persons who comprise the group known as Lee Downey and Associates as retainers of interest in that certain land described in Exhibit "A" of the Net Profits Contract, effective June 21, 1957.

3. All net profit owners named on page 4 of the Net Profits Contract, effective June 21, 1957.

4. Prince O. Poe and Herman Philpott as retainers of interest in that certain land described in Mining Deed dated May 27, 1957.

We are unable to prepare the consent to lien forms listed above owing to the lack of required information. In reference to Items 1, 2, and 3, Exhibit "A" which is part of both Net Profits Contracts indicates there are more claims subject to overriding royalty than were covered by the Mining Deeds, which you enclosed with your letter of August 7, 1957 to this office. The claims not covered by appropriate agreement or agreements are:

The Nob Hill Nos. 1-3
San Pedro group, Nos. 1-7
Lee Mines, Nos. 1-3
ABO claims, Nos. 1-49 (excluding Nos. 3, 4, 5, 6, 11, 12, 13, 14, 17, and 18)
Lucky Nos. 1-3
Atom Nos. 1-4
Rocky No. 1 claim

This being the case, it is imperative that we be furnished with documents which will disclose the names of the persons retaining interest in the above listed claims.

In reference to Item 4, we are hesitant to prepare the consent to lien because the copy of the Mining Deed, which you furnished us, refers to the Hungry Hill, as well as other claims, whereas Exhibit "A" of the two Net Profits Contracts list the Hungry Hill No. 1 claim. Please advise us if both references refer to the same claim. If so, what is the proper name of the claim?

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer,
DMEA Field Team, Region III

Enclosures

MHM:jy
cc: Sec. Op. Comm. (2)
Harshman
Emerick
DMEA/TUC
} w/cy of Applicant's ltr. dtd. 8-21-57
Docket 4792
Chron.

LEE DOWNEY
P. O. BOX 3
OFFICE 100 - 101 DOWNEY BLDG.
CARLSBAD, NEW MEXICO

August 21, 1957

DMEA
DEPARTMENT OF THE INTERIOR
AUG 23 1957
REGION III
DENVER, COLORADO

United States Department of the Interior
D. M. E. A.
224 New Customhouse
Denver 2, Colorado

D.M.E.A. - 4792
Attention Mr. J. W. Townsend,
Alternate Acting Executive Officer
DMEA Field Team, Region III

Dear Mr. Townsend:

In answer to your questions in your letter of August 19, 1957:

(1) Rocky Nos. 2 & 3 claims were not validated since they were overlapping claims and no expenditure has been made on these claims by these names; however, physical examination of the plats show work close but on other claims. The San Pedro No. 8 was validated. Work is proposed in this venture and "Copy of Proof of Labor on Mining Claim" is enclosed for your records.

(2) The following comprise the group known in these records as "Lee Downey & Associates:" Lee Downey, R. Dale Harris, A. J. Brandon, Wilbur E. Swenson, D. M. Ferebee, R. J. Hobby, Wentworth T. Durant.

(3) "N.S.L." following the name of Carlsbad Mineral Corporation: Quote from New Mexico Law as follows: "Carlsbad Mineral Corporation" Non-Stockholders Liability.

(4) Net Profits Contract, dated January 29, 1957, relates to the properties listed in "Exhibit A." This "Exhibit A" transfers property to Lee Downey & Associates and from Lee Downey & Associates to the Atomic Minerals Corporation.

I hope that this clears the air on your questions concerning this application. However, if I can be of any further help in any way to get all points clear with your department, please advise. I will endeavor to get the information back to you. We are vitally interested in keeping the ball rolling on this project.

Yours sincerely,

Lee Downey

Lee Downey

LD/av

PROOF OF LABOR

NAME OF MINE:

Link #1 et al

NAME OF OWNERS:

LEE DOWNEY & ASSOCIATES

STATE OF NEW MEXICO :

COUNTY OF LINCOLN :

I hereby certify that this instrument was filed for record on the 26th day of June A.D. 1957, at 11:47 o'clock a.m., and duly recorded in Book A-20 of Mining Records, Page 464

Inice Hust

Probate Clerk and Ex-Officio Recorder.

by Alice King
Deputy

Rec. #656 Fee $1.75

nd-H

Proof of Labor on Mining Claim

PROOF OF LABOR ON MINING CLAIM

STATE OF NEW MEXICO :

COUNTY OF LINCOLN :

LEE DOWNEY being first duly sworn deposes and says that the owners Lee Downey and Associates of the unpatented mining claim in the Mining District in said County and State, known and recorded by the name of LINK 1,2,3,4,5,6,7,8, and 9; SAN PEDRO 1,2,3,4,5,6,7, and 8 caused to be done and performed the assessment work thereon required by law to be done upon such claims for the year 1957-58; that the time when such work was done in the months of April, May, June, 1957, and the amount, character and the actual cost thereof were as follows:

Surveyed in claims by plane table and alidade, sampled and assayed samples. Drilled on this group of claims with core drill. General geological and engineering investigation,

and that the names of the persons who performed such work are as follows:

D. M. Ferebee, C. C. Smith Drilling Co.
Mosa Maryfield.

This affidavit being made by the undersigned in conformity with Section 2315, Compiled Laws of 1897.

LEE DOWNEY

Subscribed in my presence and sworn to before me this 25th day of June, A.D. 1957.

(SEAL) OLA MAYE HAWKINS

My commission expires: July 30, 1958

224 New Customhouse
Denver 2, Colorado

August 19, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 21 1957
DATE | INITIAL | CODE
8/21 | C | 220
700

Mr. Lee Downey, President
Atomic Minerals Corporation
101 Downey Building
201 South Halagueno Street
Carlsbad, New Mexico

Re: Docket DMEA-4792 (Thorium-Uranium)
(Abo, et al., claims)
Lincoln County, New Mexico

Dear Mr. Downey:

Before the indicated Consent to Lien forms can be made up, it will first be necessary that you clarify the following:

1. The list of claims accompanying the application includes the San Pedro No. 8 and Rocky Nos. 2 and 3 claims, which are not covered by the Net Profits Contract, dated June 21, 1957. If you intend to include these claims in the application, you must prove your control of the land by submitting the applicable documents.
2. The list of all partners in Lee Downey and Associates.
3. What is meant by "(n.s.l.)" after the name Carlsbad Mineral Corporation on the Mining Deeds that were submitted with your letter of August 7, 1957.
4. To what property does the Net Profits Contract, dated January 29, 1957, relate? Exhibit A attached to the foregoing refers to a contract executed after January 29, 1957.

Your attention to this matter will expedite the processing of your application.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

MHM:jy
cc: Sec. Op. Comm. (2)
Harshman
Emerick
DMEA/TUC
Docket 4792
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/16	Ching	200
8/16	Knoust	200
8/18	Johnson	110
"	Mittendorf	000
8/19	C	220
		200

Hon. Clinton P. Anderson
United States Senate
Washington 25, D. C.

AUG 19 1957

Re: Docket No. DMEA-4792
(Thorium and uranium)
Atomic Minerals Corporation
Abo, et al., Claims
Lincoln County, New Mexico

Dear Senator Anderson:

Your letter of August 1, 1957, to Mr. E. N. Harshman, Acting Executive Officer at Denver, concerning the subject application, has been forwarded to this office for attention.

Our latest information shows that the application was referred to the Tucson Office on August 5 together with a request that a field examination of the property be made. Our field men will undoubtedly make an examination soon if they have not already done so.

Some time may elapse before a detailed report is completed and forwarded to this office. We shall be pleased to advise you when the report is at hand.

Sincerely yours,

C. O. Mittendorf (for)
Administrator

MChing/izm 8-16-57
cc to: Mr. Ching
Admr.'s Reading File
DMEA FT Reg. 3 (2)
THKiilsgaard, 5224

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

August 6, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 8 1957

DATE	INITIALS	CODE
8/9	O.K.	220
"	Ching	700

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4792 (Thorium-Uranium) Atomic Minerals Corporation (Abo, et al., claims) Lincoln County, New Mexico

Enclosed is a copy of a letter for your reply from Senator Clinton P. Anderson.

The application was referred to the Tucson Office, DMEA, August 5, 1957, and a field examination was requested.

E. N. Harshman

E. N. Harshman

Enclosure

HARRY FLOOD BYRD, VA., CHAIRMAN
ROBERT S. KERR, OKLA.
J. ALLEN FREAR, JR., DEL.
RUSSELL B. LONG, LA.
GEORGE A. SMATHERS, FLA.
CLINTON P. ANDERSON, N. MEX.
PAUL H. DOUGLAS, ILL.
ALBERT GORE, TENN.
EDWARD MARTIN, PA.
JOHN J. WILLIAMS, DEL.
RALPH E. FLANDERS, VT.
GEORGE W. MALONE, NEV.
FRANK CARLSON, KANS.
WALLACE F. BENNETT, UTAH
WILLIAM E. JENNER, IND.
ELIZABETH B. SPRINGER, CHIEF CLERK

HMC

United States Senate

COMMITTEE ON FINANCE

DMEA
DEPARTMENT OF THE INTERIOR
AUG 5 - 1957
REGION III
DENVER, COLORADO

August 1, 1957

Mr. E. H. Harshman
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Dear Mr. Harshman:

I have been informed by Mr. Lee Downey, President, Atomic Minerals Corporation, Carlsbad, New Mexico, that his firm has filed an application for a Defense Minerals Exploration loan.

I am very much interested in assisting in the development of this type of property in New Mexico, and would appreciate anything that can be done to expedite action on the application. I would like to be advised as to its progress from time to time.

Sincerely yours,

Clinton P. Anderson

CPA-VLFw

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 6 1957
DATE | CODE

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/13	Ching	700
8/13	Kounds	200
8/14	[illegible]	130
"	[illegible]	110
14	[illegible]	100
8/15	[illegible]	226
		700
8/14	[illegible]	130
8/14	Nelson	130

AUG 15 1957

Department of the Interior

DMEA

14X4401(01) Revolving Fund
Defense Production Act,
Interior (Transfer to Office of
Secretary)

T E L E T Y P E

W. H. KING
EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER, COLORADO

REURTT AUGUST 8 ATOMIC MINERALS CORP. DOCKET 4792. PLEASE PREPARE COMMENTS TO LIEN FORMS ON BASIS INFORMATION RECEIVED BUT ADVISE APPLICANT THIS ACTION IN NO WAY IMPLIES THAT A CONTRACT IS ASSURED.

George C. Selfridge

CHAIRMAN, OPERATING COMMITTEE (SHS)

MChing/izm 8-13-57
cc to: Mr. Ching
Admr.'s Reading File
~~DMEAXFTXRXXX~~
THKiilsgaard, 5224
Operating Committee
Confirmation copy to Reg. 3

8623

Mr. George Selfridge

OFFICIAL FILE COPY
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RECEIVED AUG 12 1957

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"	Bessy	700

DN 235 BUR MINES 8-12-57 9-20

CHAIRMAN OPERATING COMMITTEE, DMEA

RE DOCKT DMEA 4792, ATOMIC MINERALS CORP. INFORMATOXXX INFORMATION FOR CONSENT TO LIENS RECEIVED IN APPLICANT S LETTER OF AUGUST 7, 1957.

ADMINISTRATOR, DMEA, INDICATED TO HAVE RECEIVED SAME. WILL YOU PREPARE MF-205 FORMS, OR SHALL WE PRPXXX PREPARE THMXXX THEM HERE/Q/

E N HARSHMAN ACTING EXECUTIVE OFFICER

Denver Colo.

AUG 12 12 37 PM '57
BUREAU OF MAILS
MAIL ROOM
WASHINGTON, D. C.

22A New Customhouse
Denver 2, Colorado

August 9, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 13 1957

DATE	INITIALS	CODE
8/13	G	220
		700

Memorandum

To: DMEA/TEC
W. L. Emerick } w/enclosures, Items 1-8

From: DMEA Field Team, Region III

Subject: Docket DMEA-4742 (Thorium-Uranium) Atomic Minerals Corp. (Abo, et al., claims) Lincoln County, New Mexico

Enclosed as a supplement to the application is the following material:

1. Copy of Mining Deed, dated June 11, 1957, between J. V. Fritts, Ruth C. Fritts, and Carlsbad Mineral Corporation.

2. Copy of Mining Deed, dated May 27, 1957, between Prince O. Poe, Herman Philpott, and Carlsbad Mineral Corporation.

3. Copy of Mining Deed, dated May 6, 1957, between S. W. Garrison, James Gaulding, and Lee Downey and Associates.

4. Copy of Mining Deed, dated May 20, 1957, between W. H. Donley, Nevella Donley, Shelby J. Dugas, Phyllis Jean Dugas, and Carlsbad Mineral Corporation.

5. Copy of Mining Deed, dated June 1, 1957, between Jess Garrison, Afrey A. Garrison, Charlie Leslie, Alice Joy Leslie, and Lee Downey and Associates.

6. Copy of Mining Deed, dated June 4, 1957, between W. H. Donley, Nevella Donley, Shelby J. Dugas, Phyllis Jean Dugas, and Carlsbad Mineral Corporation.

7. Copy of Net Profits Contract, effective January 29, 1957.

8. Copy of letter, dated August 7, 1957, from the Applicant, sending Items 1-7.

If you recommend Government participation in an exploration contract, you are to notify the Applicant that Consent to Lien and Subordination Agreement forms must be executed by all the owners and royalty claimants listed in all applicable instruments forwarded by this memorandum, as well as those persons listed in the Net Profits Contract, dated June 21, 1957.

The indicated MF-205 forms will be prepared either by this or the Washington office and sent to the Applicant for execution in the event a contract is indicated.

Original signed by
E. N. HARSHMAN

By E. N. Harshman
Acting Executive Officer

Enclosures

MEM:jy

cc: Sec. Op. Comm. (2)
Harshman
Docket 4742
Chron.

8/13	Q.	220
"	Chg	700

August 7, 1957

D.M.E.A.
Re: Docket No. 4792
Lincoln Co.,
New Mexico.

Mr. E. N. Harshman
Defense Mineral Exploration Administration
Department of Interior
224 New Customhouse
Denver, 2, Colorado

Dear Mr. Harshman:

In reply to your letter of August 5, 1957, I am enclosing:

1. Copies of Net Profits Contract.

2. Agreements which provide for 5% overriding royalty against the applicable claims listed in Net Profits Contract, dated June 21, 1957.

As per your instruction, a copy of this letter and one copy of each of the above listed items are being sent directly to Mr. C. O. Mittendorf, Administrator Defense Mineral Exploration, Washington, D. C.

Very truly yours,

ATOMIC MINERALS CORPORATION
101 Downey Building

By Lee Downey
Lee Downey, President

LD/av
Encls
cc Mr. C. O. Mittendorf
Encls

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 7 1957

DATE	INITIALS	CODE
8/7	P.K	220
"	[illegible]	700

224 New Customhouse
Denver 2, Colorado

August 5, 1957

Memorandum

To: DMEA/TUC) w/enclosures, Items 1-7
W. L. Emerick) " " "

From: Acting Executive Officer, DMEA Field Team, ~~Region~~ III

Subject: Docket DMEA 4792 (Thorium-Uranium) Atomic Minerals Corporation (Abo, et al., Claims) Lincoln County, New Mexico

Enclosed is the following material relating to the subject docket:

1. Copy of application for Government assistance in exploration work under the DMEA program.
2. Memorandum of Review by James Pinne, USBM.
3. Memorandum of Review by M. R. Nelson, USGS.
4. Letter of transmittal of the foregoing to this office, dated July 29, 1957, from the Acting Chairman, Operating Committee, DMEA.
5. Routing Control Sheet.
6. Letter dated July 29, 1957, from Administrator, DMEA, to the Applicant.
7. Letter dated August 5, 1957, from this office to the Applicant.

A field examination of the property and a joint report of findings and recommendations pertaining to the Applicant's work proposal are requested.

By Item 7 you will note that the Applicant has been requested to furnish additional information concerning its rights to the land proposed for subordination. Copies of this information will be forwarded to you upon receipt from the Applicant. If you recommend Government participation and an exploration project, please notify the Applicant and this office at once so that MF-2[illegible] Forms can be completed and submitted.

Eleven extra copies of each map used in the joint report which show the land to be subordinated and the location and extent of recommended work, relative to property boundaries, should be submitted if Government participation is recommended.

The Bureau of Mines' copy of the application should not be returned to this office, but is to be kept for the Examining Engineer's file. The Routing Control Sheet, however, is to be completed, detached from the application, and forwarded to the Executive Officer with the Joint Examination Report. The Survey's copy of the application is to be returned to Mr. Harshman's office

Original Signed by
E. N. HARSHMAN

E. N. Harshman

Enclosures

MHM:ch

cc: Exec. Op. Comm. (2)
Harshman W/cy of Items 2, 3, 4, 6 & 7
Docket
Chron.

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 7 1957

DATE	INITIALS	CODE
8/7	P.K.	220
"	[illegible]	700

224 New Customhouse
Denver 2, Colorado

August 5, 1957

Mr. Lee Downey, President
Atomic Minerals Corporation
101 Downey Building
201 South Halagueno Street
Carlsbad, New Mexico

Re: Docket No. DMEA 4792 (Thorium, Uranium) Abo, et al., Claims) Lincoln County, New Mexico

Dear Mr. Downey:

In reply to your telegram dated August 2, 1957, Consent to Lien and Subordination Agreement Forms will be forwarded when this office has been provided with three copies of the following:

1. NET PROFITS CONTRACT executed January 29, 1957.
2. Agreement or Agreements which provide for a 5% overriding royalty against the applicable claims listed in NET PROFITS CONTRACT dated June 21, 1957.

One copy of each of the above-listed items should be sent directly to C. O. Nittendorf, Administrator, DMEA, Washington, D. C.

Very truly yours,

E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer

MHM:eh

cc: Sec.Op. Comm. (2)
DMEA/TUC
Harshman
Emerick
Docket
Chron.

W/cy of telegram dated August 2, 1957

Class of Service

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

4792

SYMBOLS

DL = Day Letter

NL = Night Letter

LT = International Letter Telegram

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

DMEA
DEPARTMENT OF THE INTERIOR
1201
AUG 2 - 1957
REGION III
DENVER, COLORADO

LA053 (04)

L CSA011 PD=CARLSBAD NMEX 2 859AMM=

1957 AUG 2 AM 9 10

=WILLIAM H KING DMEA=

=224 NEW CUSTOM HOUSE BLDG DVR=

=DESIRE YOU SEND CONSENT TO LIEN AND SUBORDINATION AGREEMENT FORMS FOR DOCKET NUMBER DMEA-4792=

=ATOMIC MINERALS CORP BOX 3=

CYTO
Emerick
Haessman
DMEA/TUC
WO-2

DOCKET

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/25	Ching	700
7/25	Ellis	700
7/24	Martin	130
7/28	[illegible]	110
"	[illegible]	110
		220
		700

JUL 29 1957

Mr. William H. King
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4792 (Thorium, uranium)
Atomic Minerals Corporation
Abo, et al., Claims
Lincoln County, New Mexico

Dear Mr. King:

The subject application is being referred to you for investigation, a field examination if warranted, and recommendations.

Enclosed for your information are memoranda, dated July 23, 1957, by N. E. Nelson, USGS, and James Paone, USBM, relating to the application. Also enclosed are two copies of the application for the use of the Field Team.

Your attention is called to the fact that the list of claims accompanying the application includes the San Pedro No. 8 and Rocky Nos. 2 and 3 claims, which are not covered by the Net Profits Contract, dated June 21, 1957.

In the event a contract is recommended the Applicant should be advised that Consent to Lien and Subordination Agreement forms must be executed by all the owners and royalty claimants listed in the Net Profits Contract, executed January 29, 1957 (copies not available), the Net Profits Contract, dated June 21, 1957, and the agreement or agreements (copies not available) which provided for the 5 percent overriding royalty against most of the claims.

The principalmetal to be explored for appears to be thorium, not uranium.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (WSM)

Enclosures
APPROVED:

Frank D. Lamb (WSM)
Member, Bureau of Mines

Thor H. Kiilsgaard (WSM)
Member, Geological Survey

MChing/izm 7-25-57
cc to: Mr. Ching
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/25	Ching	700
7/25	Ellis	700
7/26	Martin	130
7/26	Lamb	130
7/29	Dogoard	130
"	Johnson	110
"	Mittendorf	100
7/29	P.K.	220
		700

JUL 29 1957

Mr. Lee Downey, President
Atomic Minerals Corporation
101 Downey Building
201 South Halagueno Street
Carlsbad, New Mexico

Re: Docket No. DMEA-4792 (Thorium, uranium)
Abo, et al., Claims
Lincoln County, New Mexico

Dear Mr. Downey:

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

Mr. William H. King
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

In the event a project is approved for the subject property, it will be necessary for you to furnish the required Consent to Lien and Subordination Agreement forms properly signed and dated, and the addresses of the interested parties shown. An early submission of these forms may save time.

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

Sincerely yours,

C. O. Mittendorf
Administrator

MChing/izm 7-25-57
cc to: Mr. Ching
Amd.r/s Reading File
DMEA FT Reg. 3 (2)

8623

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 24 1957

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"	Ching	700

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

July 23, 1957
Re; DMEA 4792
Atomic Minerals Corp.
North, South, & East Groups
Lincoln County, New Mexico
$853,587.50 - Uranium, Thorium

Memorandum

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

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

Subject: Review of application

The applicant requests assistance in exploring for thorium and allied radioactive minerals in about 43 different possible faults in quartz monzonite by trenching and drilling.

Just how the possible fault (veins) were located as they are is not clear. Little work seems to have been done. Three holes have been drilled but information concerning them is not given except that they drilled to determine costs, estimated to be $70.00 per hour.

Attention appears to have been centered on two or three localities, Monzo 2, Pinie #8, and Lajdale #2. Apparently small open cuts have been made at those places and repeatedly sampled. Samples from three other places are also given. Except for 2 samples taken by Fred S. Boyd, Jr. of the A.E.C. at the Monzo #2 pit and 4 samples by D. M. Ferebee, the general supervisor, no dimensions are attached to the samples. Boyd's samples chipped across 3 feet assayed .005 e and .004 e U_3O_8 and .004 c and .009 C U_3O_8 respectively. No thorium determination was made. From a 4" breccia Boyd selected a sample that assayed 4.54% Th O_2. Ferebee's samples showed 1.81, 0.34, 0.31 and 0.32 Th O_2 which he says is too low for present commercial interest.

The applicant justifies the ambitious exploration program on the 2 scanty showings on the Monzo #2 and Pinie No. 8 claims. The estimated cost is:-

Supervision, Engineering, Geological and Accounting	$136,575.00
Miscellaneous Expenses	61,200.00
Exploration Drilling	210,000.00

Bulldozing	$135,000.00
Blast Hole Drilling	98,000.00
Dynamite	101,475.00
Unforseen Contingencies - 15%	111,337.50
Total	$853,587.50

The applicant estimates it will take 300 days, working, to complete the project.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

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

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 24 1957

DATE	INITIALS	CODE
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Comments Complete

Date July 23, 1957

DMEA Docket No. 4792
DMEA Contract No.
Commodity Uranium
Name of applicant Atomic Minerals Corp.
Name of property
Location of property Lincoln County, N. Mex.
Estimated cost of project $853,587.50

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: James Paone, Bureau of Mines Member JP
Uranium Commodity Committee

Subject: Review of Application
(Application, Field Team Report, etc.)

1. Date of subject document: 7/22/57. 2. Date received by reviewer: 7/22/57

3. Prior reports on this property known to reviewer: Yes ☐ No ☐

4. Prior reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked yes above:

8. Factors needing special consideration:
   a. Location ☐
   b. Ownership ☐
   c. Evidence of mineralization ☐
   d. Geology ☐
   e. Proposed exploration method ☐
   f. Alternate exploration method ☐
   g. Costs ☐
   h. ☐

9. Action advised:
   a. Obtain information from applicant ☐
   b. Refer to Field Team ☒
   c. Denial ☐
   d. Agree with Field Team ☐
      1. Consult with Mr. _____ at _____ AEC office.
   e. Disagree with Field Team ☐
   f. Suggest alternate plan ☐
   g. Request another examination ☐
   h. Approval ☐

10. Remarks: (Use back of page if necessary) This appears to be an extremely ambitious program and the costs are entirely unrealistic.

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

July 22, 1957

Atomic Minerals Corporation
101 Downey Building
201 South Malaguena Street
Carlsbad, New Mexico

Subject: DMEA 4792

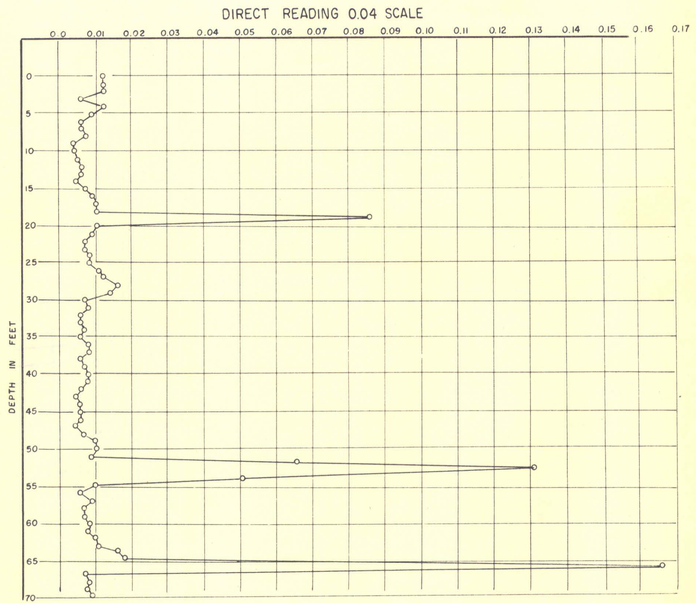
Gentlemen:

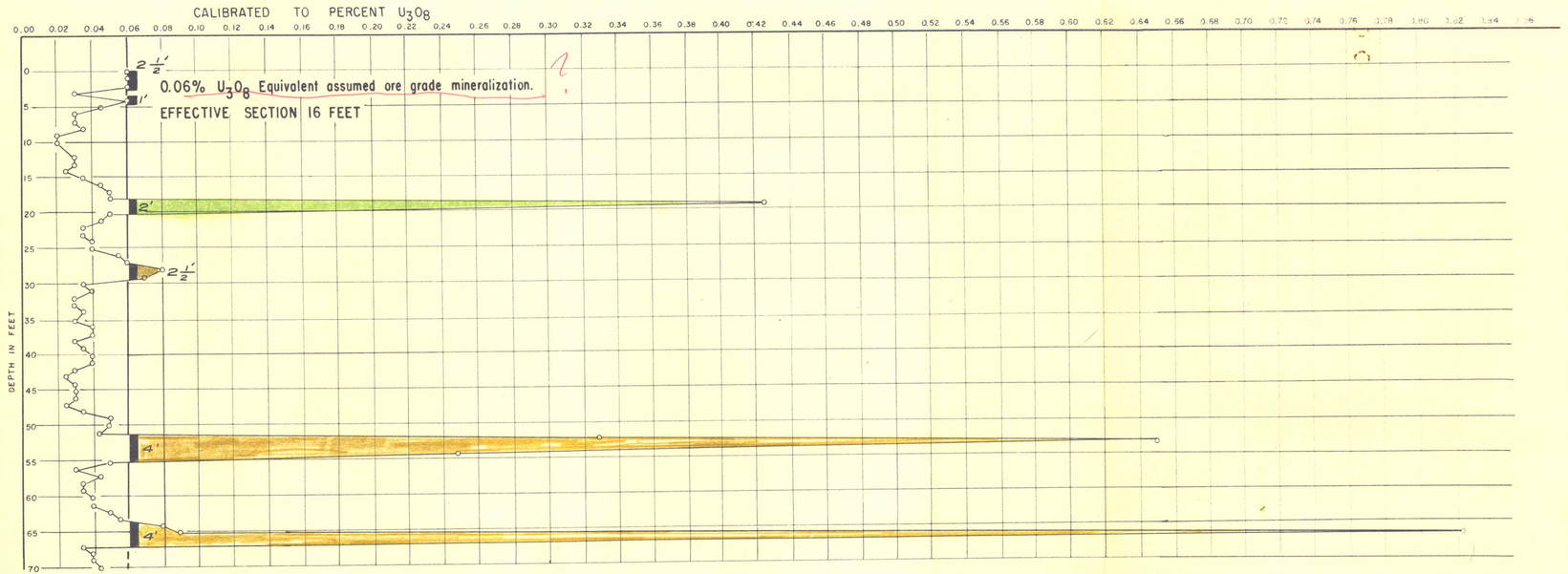
Your application for exploration assistance, dated July 13, 1957 submitted to our office at Denver, Colorado has been assigned Docket Number 4792 and referred to the Division of Rare & Miscellaneous Metals in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:
Region III

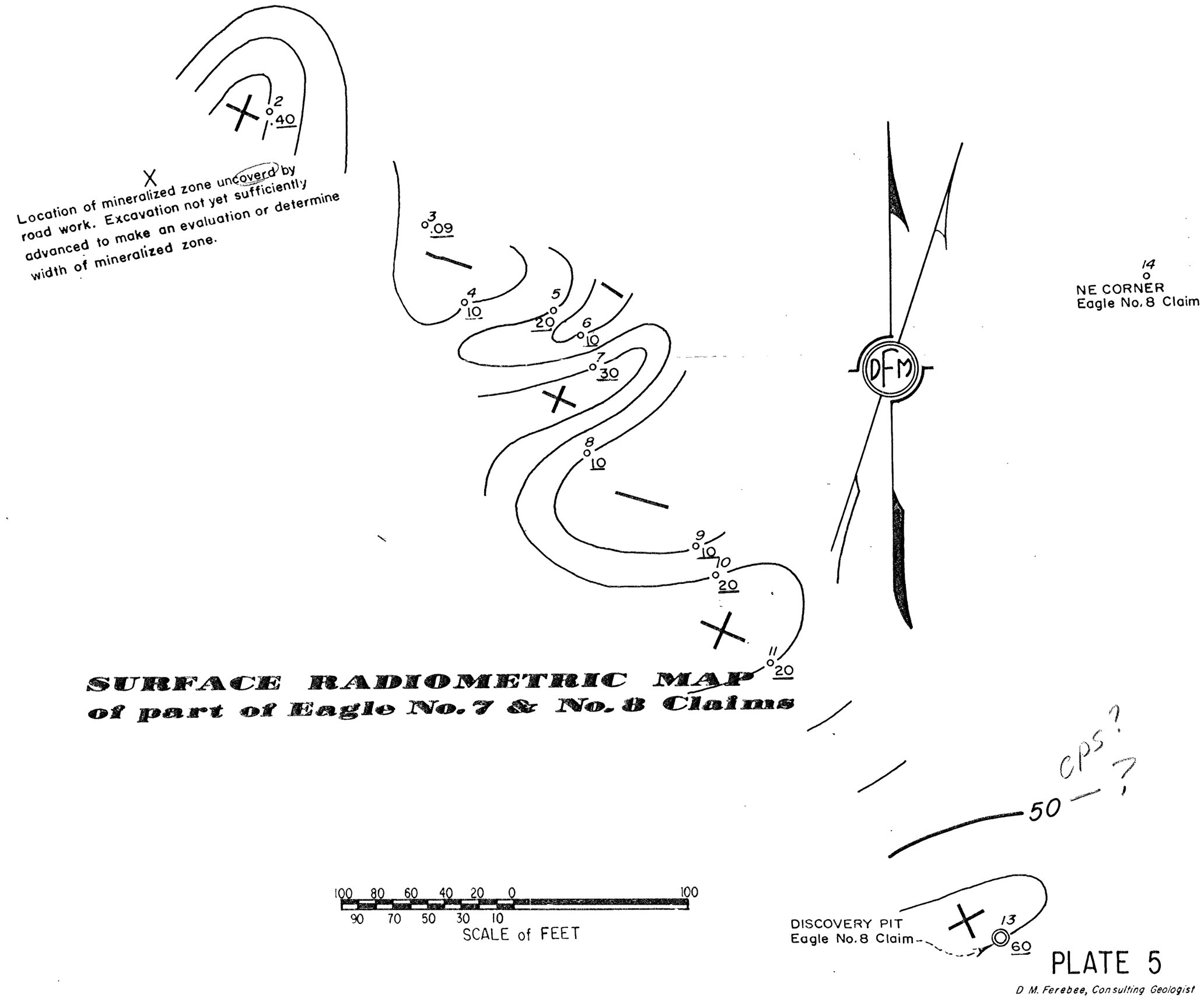




CORE HOLE No. 3
Pinie No. 8 Claim

PLATE 14

D. M. Perebee, Consulting Geologist



SURFACE RADIOMETRIC MAP
of part of Eagle No. 7 & No. 8 Claims

PLATE 5

D M. Ferebee, Consulting Geologist

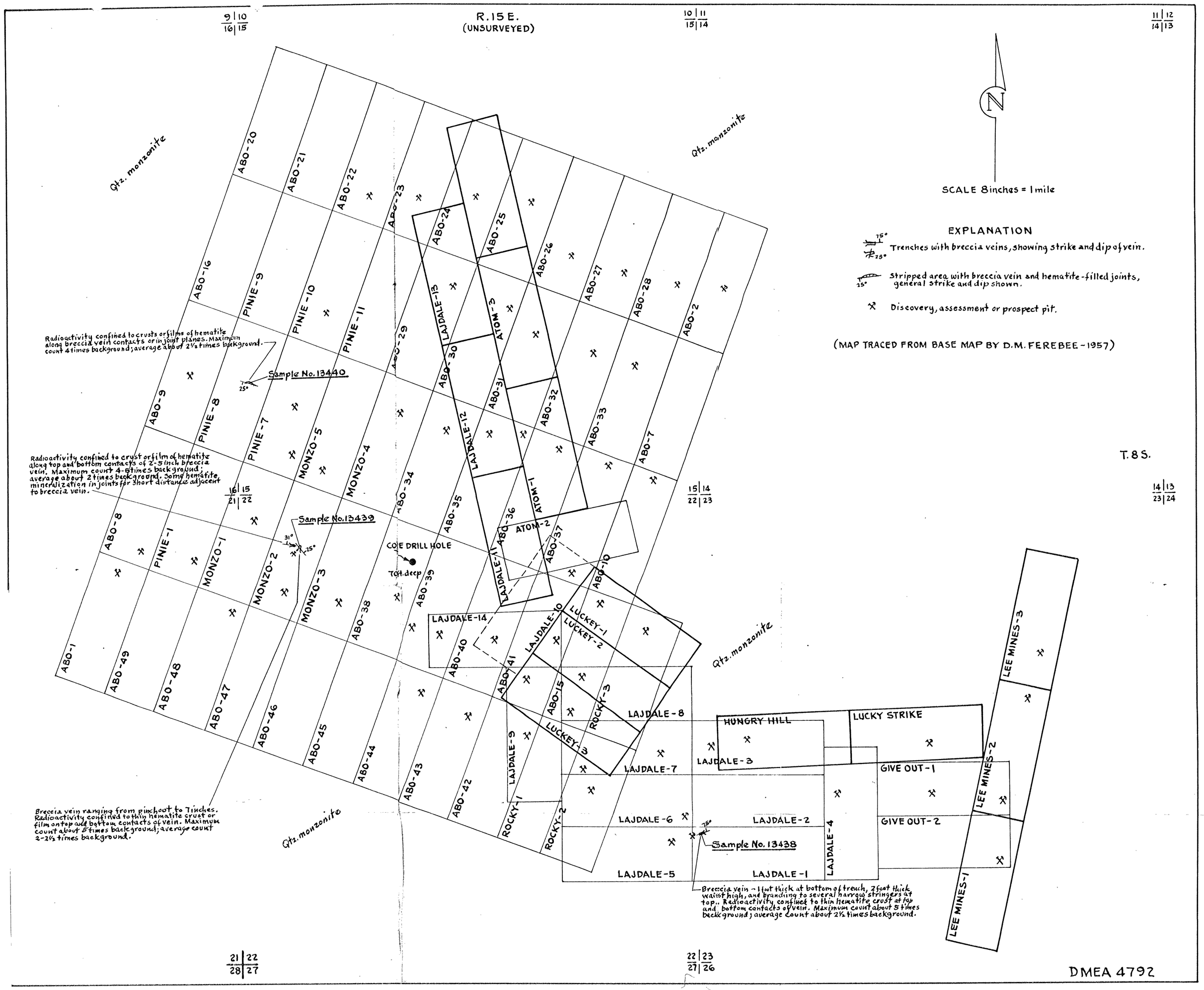
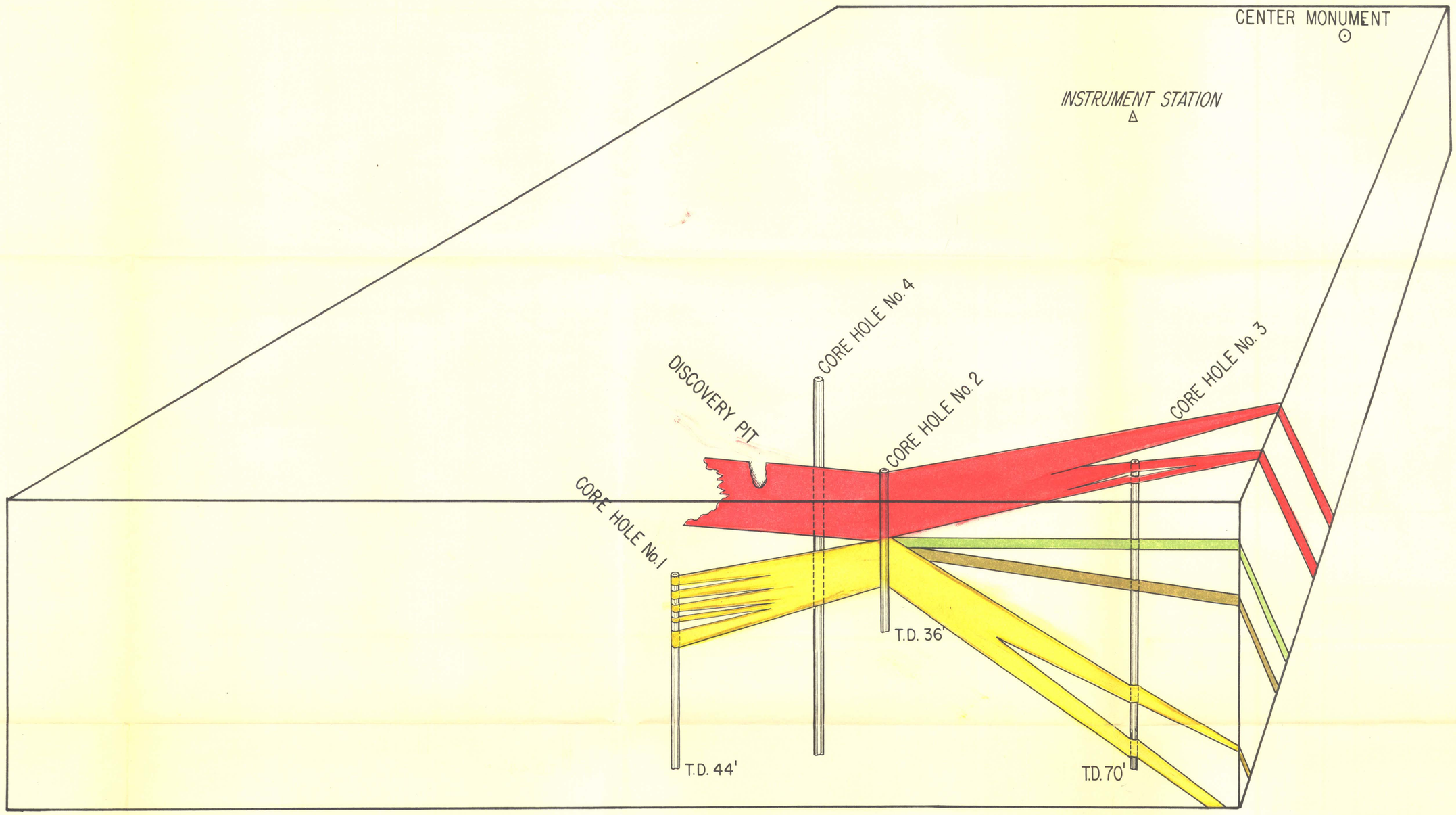


FIGURE 2 - CLAIM AND GEOLOGY MAP OF SOUTH GROUP, ATOMIC MINERALS CORPORATION, LINCOLN COUNTY, NEW MEXICO.



BLOCK DIAGRAM PARALLEL PERSPECTIVE
PINIE NO. 8 CLAIM

0 FEET 100 20 40 60 80 100
50 10 30 50 70 90

TRUE SCALE IN FEET, VERTICAL & HORIZONTAL SCALES EQUAL

PLATE 10

D. M. Ferebee, Consulting Geologist

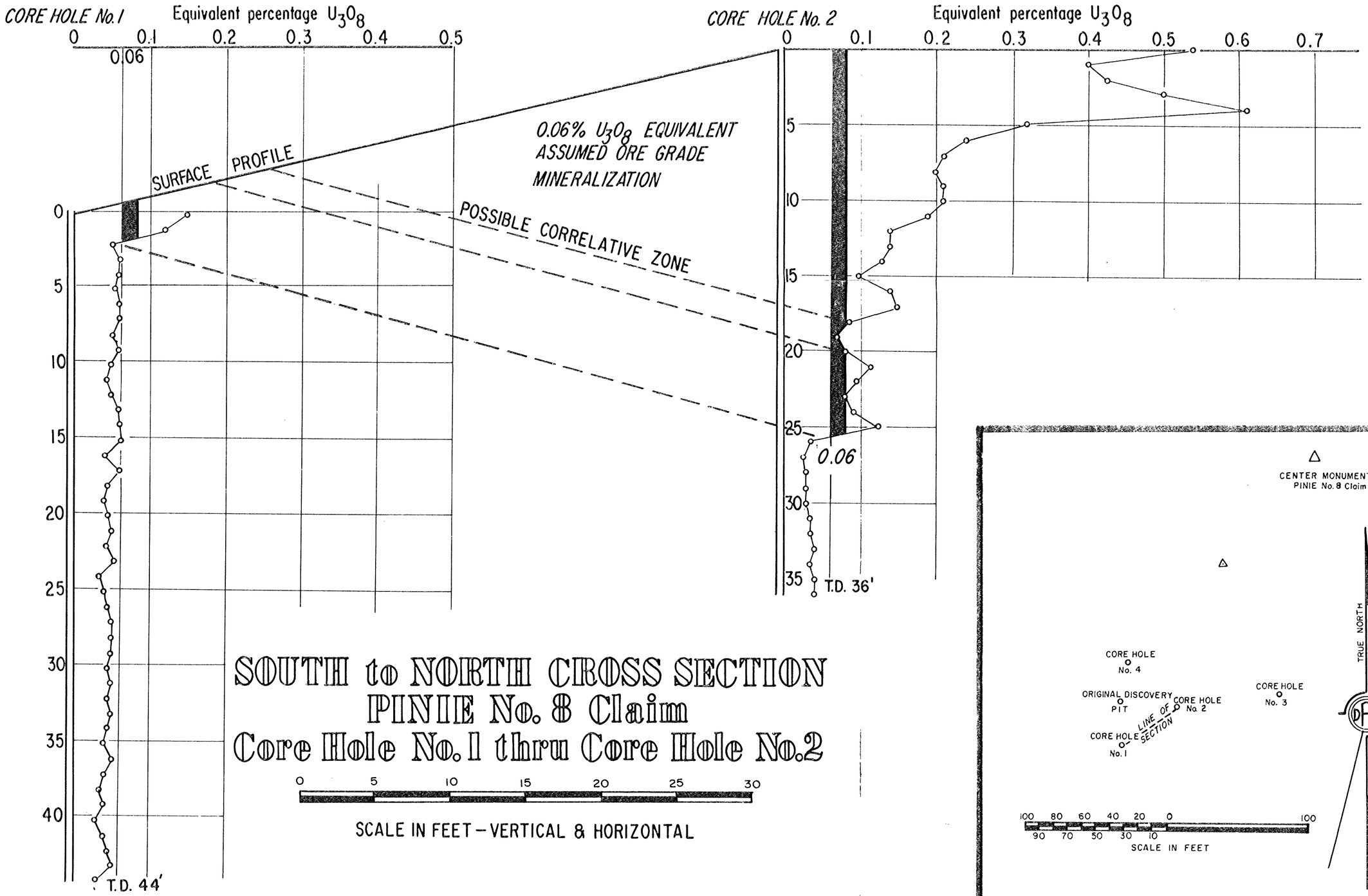
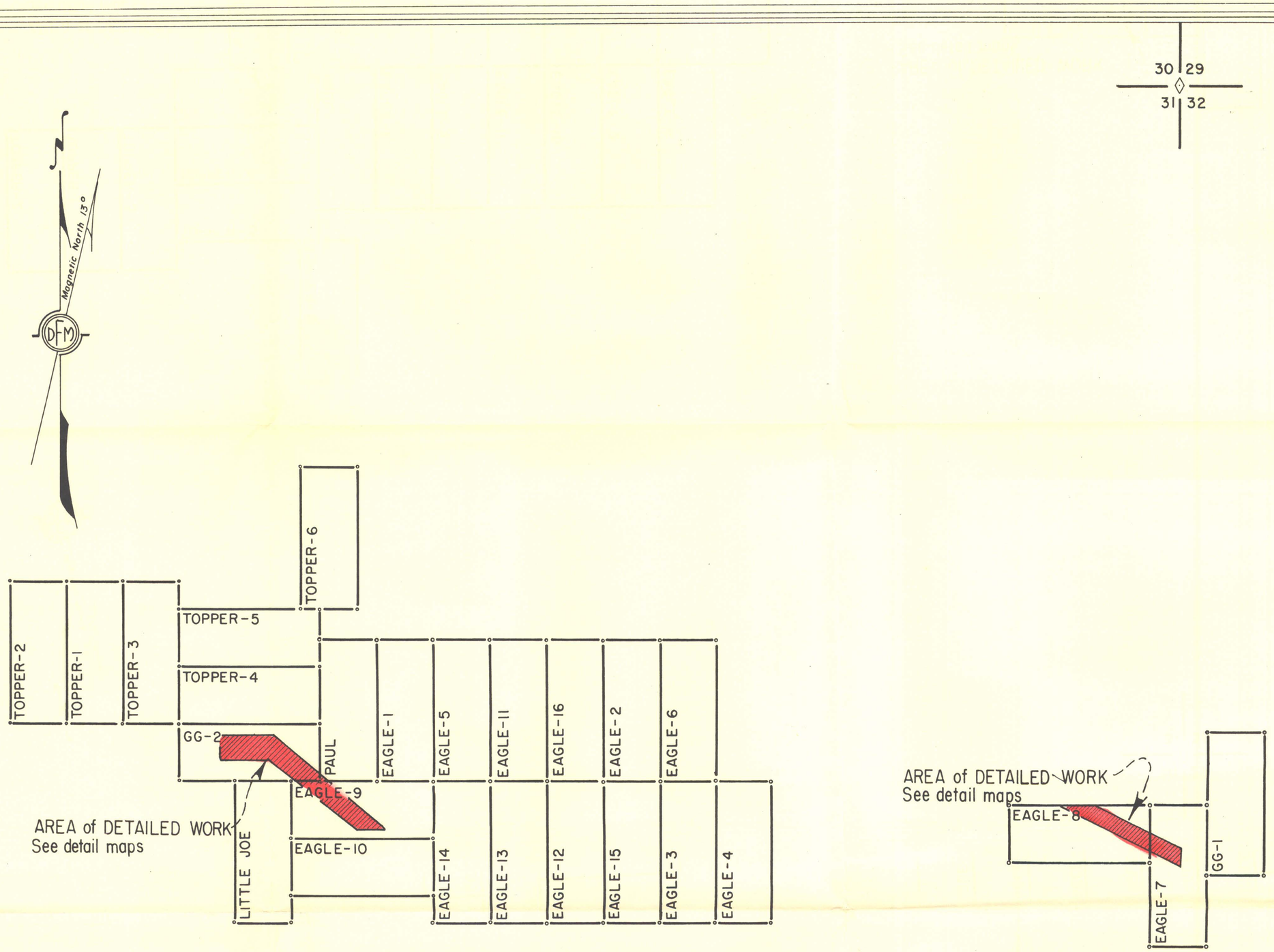
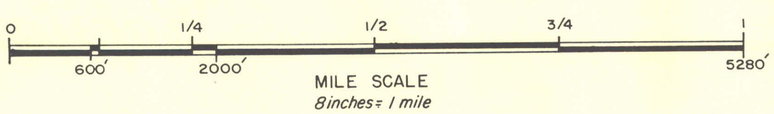


PLATE II

D.M. Ferebee, Consulting Geologist

LOCATION MAP





PLANE TABLE SURVEY

Part of

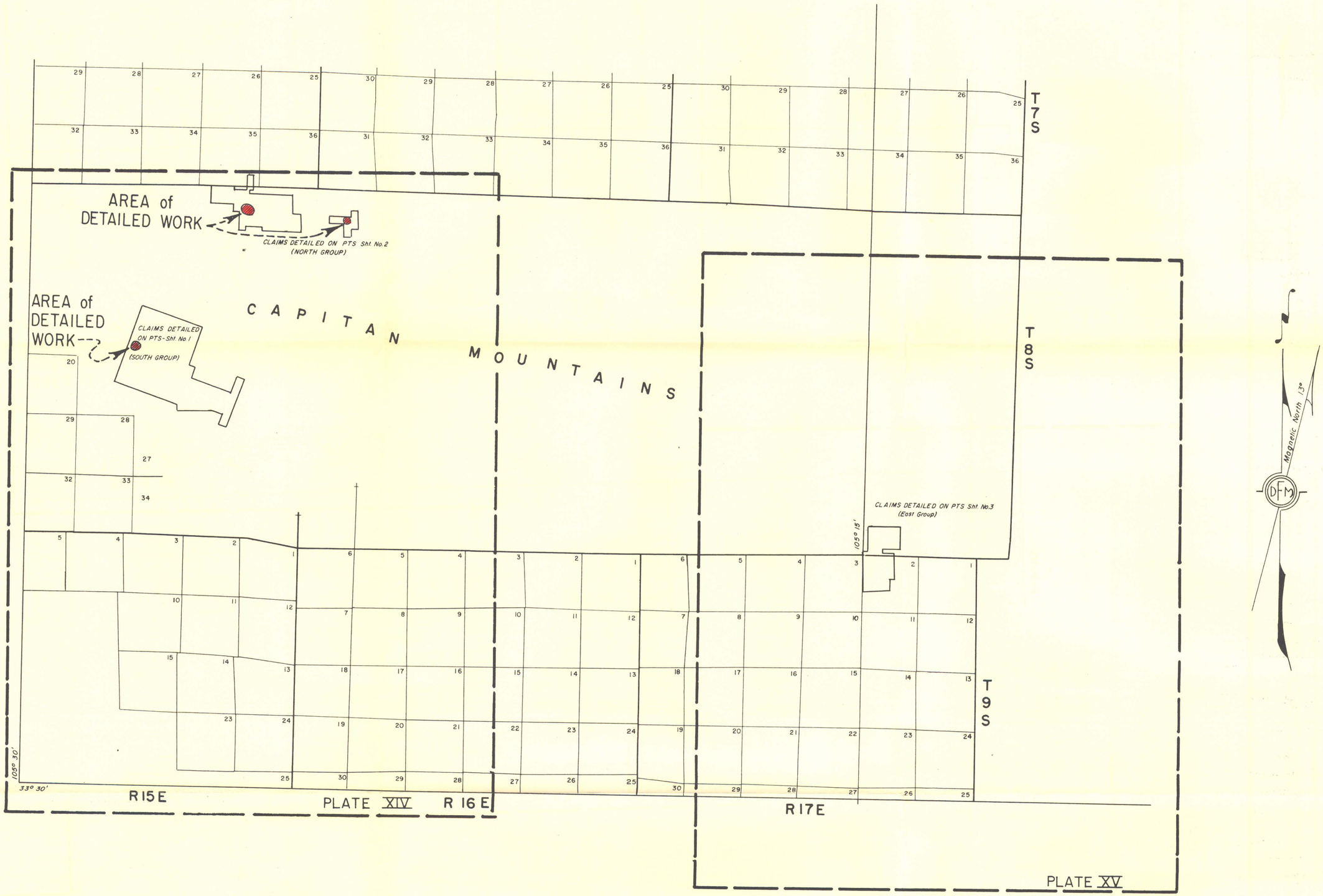
Capitan Mining District

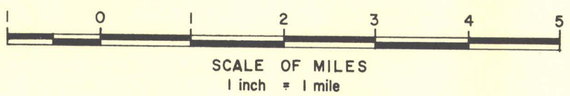
T 7 & 8 S R 15 & 16 E

Lincoln County, New Mexico

D. M. Ferebee, Consulting Geologist *June 5, 1957*

PLATE 2





LOCATION MAP

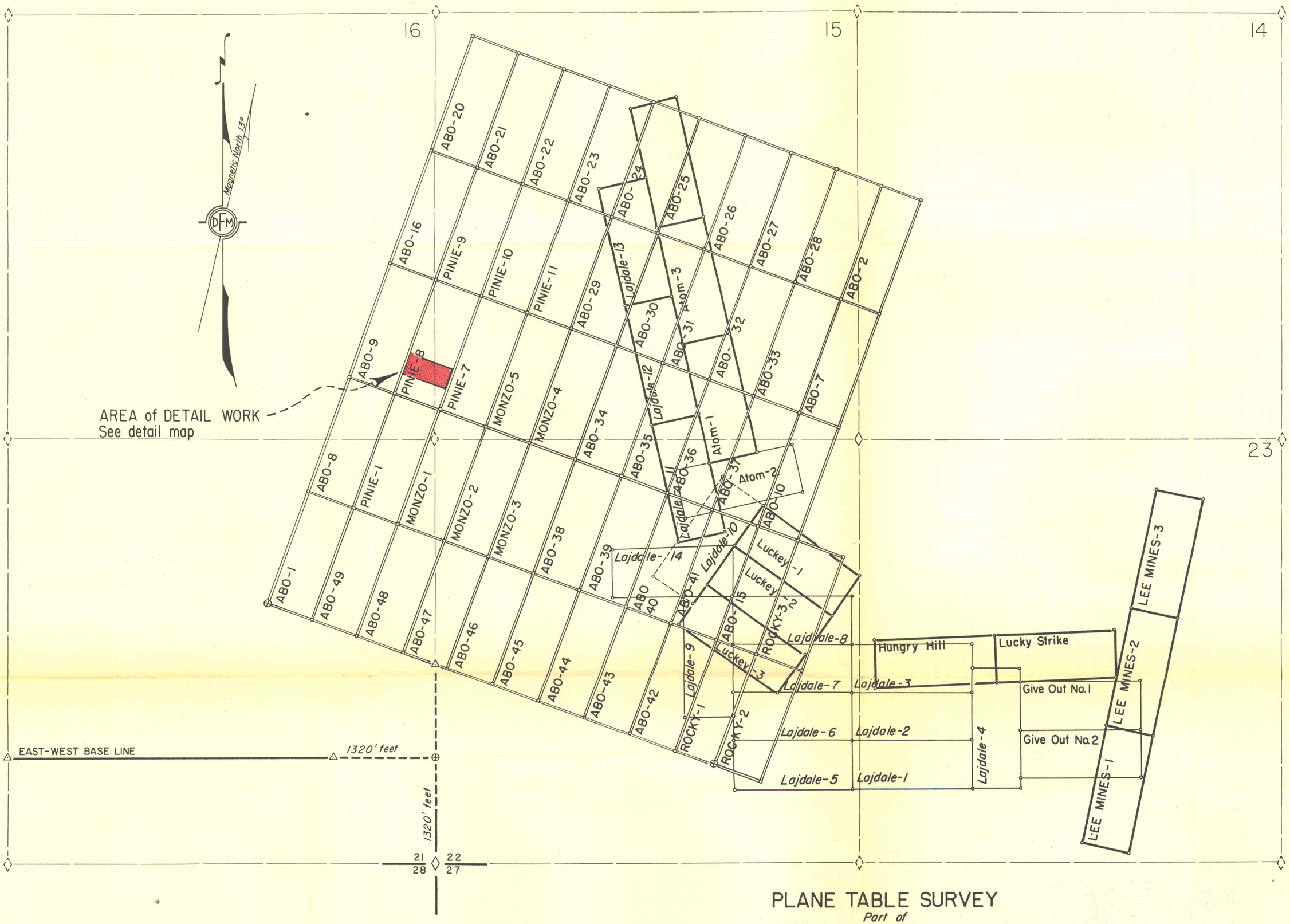
Capitan Mining District

Lincoln County, New Mexico

D. M. Ferebee, Consulting Geologist

June 20, 1957

PLATE 1



PLANE TABLE SURVEY

Part of

Capitan Mining District

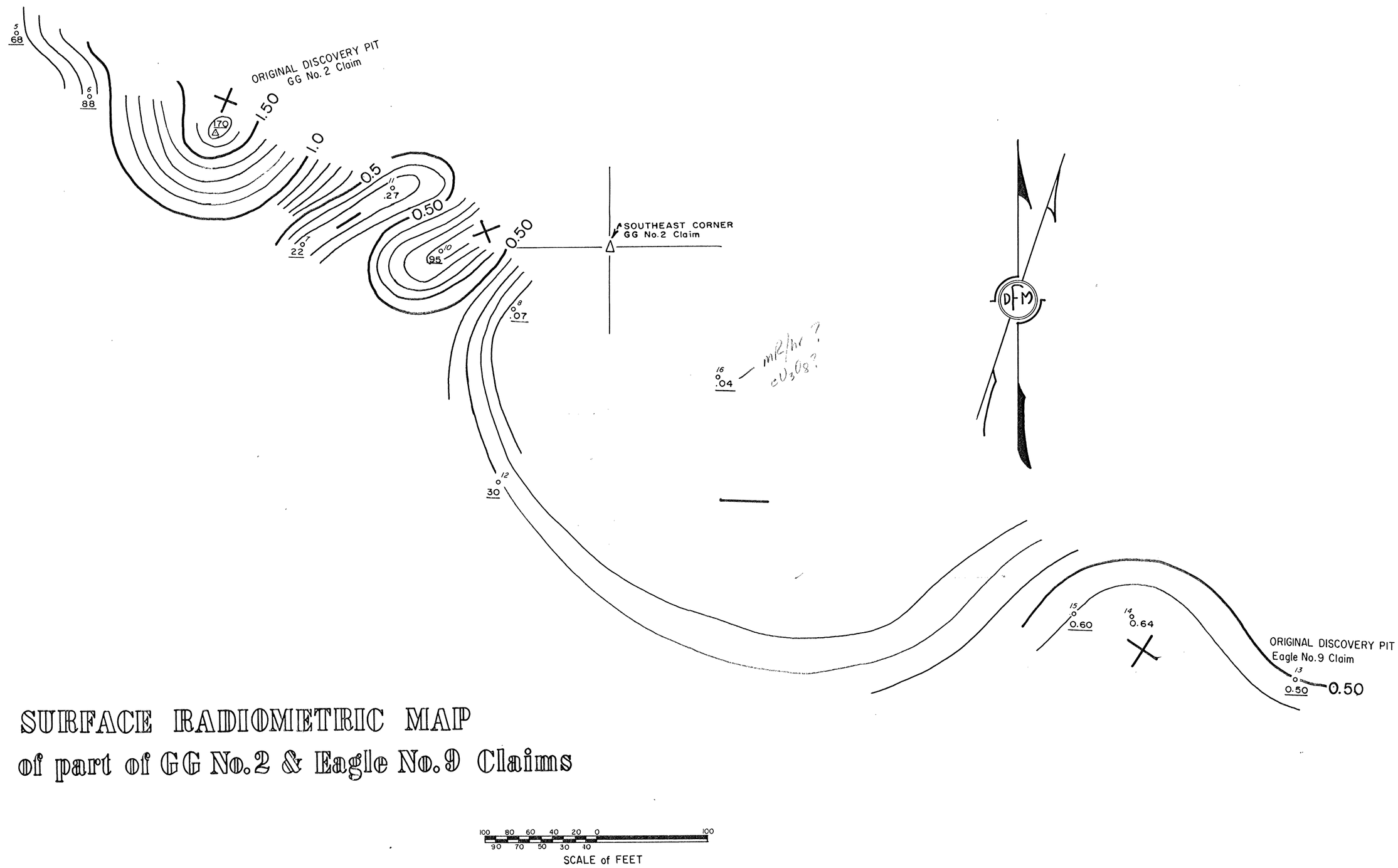
UNSURVEYED PORTION

T8S R15E

Lincoln County, New Mexico

D. M. Ferebee, Consulting Geologist *April 11, 1957*

PLATE 3



SURFACE RADIOMETRIC MAP
of part of GG No. 2 & Eagle No. 9 Claims

PLATE 4

D. M. Ferebee, Consulting Geologist