IMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

IMEA NO. 4677

✓ Application (Denied
(~~Withdrawn~~
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
Leases and assignments of leases
✓ Application and attachments
(3) Envelope for maps

Right Side

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
✓ On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order)
Interim Summary Reports by W. O. Engineers

Right Side

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

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

Optional number of [illegible]

9774

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 11 1957

DATE	INITIALS	CODE
3/13	WSM	400

March 8, 1957

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Application for DMEA Aid (Tungsten) Amalgamated Tungsten, Inc. (Copper King and Eagle Point claims), Millard County, Utah

Enclosed are the original and two copies of the subject application. One copy is being retained in our file.

The applicant proposes to explore a mineralized zone containing tungsten by driving 590 feet of tunnel at an estimated aggregate cost of $20,000.00. The proposed size and inclination of the tunnel, however, are not mentioned.

DMEA Field Team, Region III

E. N. Harshman

By E. N. Harshman
Acting Executive Officer

Enclosures

WO

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. 4-677
Metal or Mineral Tungsten
Date Received 3-11-57
Estimated Cost $20,000.00
Participation (Government %)

RECEIVED MAR 11 1957 DMEA

DEPARTMENT OF THE INTERIOR MAR 7 1957 REGION III DENVER, COLORADO

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: Consolidated Tungsten, Inc. a Utah Corporation
L. Farnsworth, President, C. P. Burton and Ralph Hafer are
Vice Presidents, and Harold Mealin is Secretary.
The Company office is 48 North 6th West, Salt Lake City, Utah

(*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

SEE ATTACHED LIST

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

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

(*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 None

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. See 3A

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

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

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

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

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

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

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

(*c*) The work will start within 30 days and be completed within 24 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated Feb. 27, 1957

AMALGAMATED TUNGSTEN, INC.

By _____ (Applicant)

By K. E. Farnsworth, Pres

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

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

NAME OF CLAIM	DATE OF RECORDING	BOOK	PAGE
Copper King	July 8,1952	4	211
Copper King 1	Sept 25,1952	13	38
Copper King 2	July 8,1952	4	211
Copper King 3	July 14,1952	4	212
Copper King 4	July14,1952	4	213
Copper King 5	Aug 13,1952	13	27
Copper King 6	Oct. 7, 1955	14	117-A
Copper King 7	Oct. 7, 1955	14	118-A
Eagle Point 1	Oct. 25, 1955	14	415
Eagle Point Mill Claims	Dec. 10, 1955	15 N.L.	16
Eagle Point 2	Oct. 25, 1955	14	415
Eagle Point 3	Oct. 25, 1955	14	416

All situated in what is known as Pine Peaks, Millard County, Utah, in an unknown mining district, approximately forty-eight miles Southwest of Kinckley, Utah.

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IV PHYSICAL DESCRIPTION

(A) During the period from June 1, 1955 to Nov. 30, 1955 Amalgamated Tungsten,
(B) Inc. spent about twenty five thousand dollars. Teh thousand dollars was spent for a truck and a"cat," the balance on road building and open pit mining operations.

Good mountain roads were built to the operations. Five cuts were opened and about 255 tons of ore were shipped. About 500 tons of ore were stock piled. Three cars of ore were shipped to Combined Metals at Bower, Utah and about 75 tons were shipped to the Metcalf Mill, about 30 miles from the property. These shipments ran from .20% to .30% Tungsten.

Two of the five cuts opened show about twelve to fifteen feet of ore that run .20% to .50% Tungsten. Two others show three to five feet of ore that run about .20% to .30%. The fifth cut shows about three to four feet of ore that runs from 1.0% to 2.0% Tungsten.

There are good roads to the property. You take the old highway No. 6 at Hinckley, Utah and go West about forty miles. Then take Mineral Valley Road, going Southwest for about fifteen miles. Pine Peaks property is about four miles above the Treasure Mountain Gravity Mill in Amacy Valley.

(C) See geological reports and maps.

There is a large granite dike running almost due North and South, perhaps a little Southwesterly. This dike is from fifteen to thirty feet in thickness. From ore pit No. 1 the granite contact slopes very gradually toward the said granite dike. We believe that we should encounter ore deposits all along the west side of this granite dike. However, we propose to tunnel all the way through to ore pit No. 5 which contains our best ore body(1.0 to 2.0%).

(D) Our Pine Peaks property is about fifty five miles southwest of Delta, Utah, the nearest railroad. There are about forty miles of gravel roads and about fifteen miles of good mountain road from Delta, Utah to the claims. The property is about four miles from Treasure Mountain Gravity Tungsten Mill and about thirty miles from Metcalf Flotation Tungsten Mill, over fairly good roads.

(E) Manpower, materials, supplies and equipment are available in Salt Lake City and Delta, Utah. There is plenty of spring water at our camp site, about one half mile from the operations.

V THE EXPLORATION PROJECT

(b) The granite contact from ore pit No. 5 (see map) appears to slope gradually East toward the granite dike running North and South. We propose to drive a tunnel on this North--South granite dike, which is on nearly a vertical contact, to intersect the ore bearing East--West granite Lime contact. (see ore cut No. 5)

We should encounter considerable ore all along the West side of the dike. However, we propose to run a tunnel all the way to ore pit No. 5. The proposed tunnel will be about 590 feet in length, at a cost of about $20,000.00.

(d) The following are the officers of Amalgamated Tungsten, Inc.:

K. E. Farnsworth, President, holds a Bachelor of Science degree from the University of Utah and did four quarters graduate work at the University of Southern California, the University of Utah and the Utah Agricultural College. He has been a school teacher, social worker and head of departments in State and County governments.

Ralph Hafer, Vice President, is an experienced business man and owner of Hafers, Inc.

C.P. Burton, 2nd Vice Pres., is a contractor, excavator.

Harold Meakin, Secratary, is the manager of Lake View Lumber & Hardware Co.

J. W. Child, Treasurer, is a certified public accountant.

B. L. Farnsworth, director, is a business man, owner of Utah Realty and Construction Co. and Lake View Lumber and Hardware Co.

The tunnel will be under the direction of W. C. Card. Mr. Card has had over thirty years of experience in mining. Most of this time was spent as a mining contractor and Leasor. He has operated two very successful mines and has shipped ore to the three principle smelters in the Salt Lake district. In his thirty years of mining Mr. Card has done considerable tunnel work and is well qualified for the proposed operations. He was in charge of the company's work at Pine Peaks in 1955 and we found him to be a good all around miner. Mr. Card also has a considerable amount of mining equipment.

If this loan is made, the Company will give a contract to drive the tunnel to K. E. Farnsworth and E. W. Card at what ever price is allowed per foot by the government, or to others equally qualified.

ESTIMATE OF COSTS

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(a) Independent Contracts:

Access road and tunnel site preparation. Cost per foot $*.41
16 hours @ $15.00 per hour $240.00

(b) Labor, Supervision, Consultants:

1 miner (lead man) at $500.00 per month. Cost per foot $5.68
1 miner at $400.00 per month. Cost per foot $4.55
Total cost per foot $10.23

Supervision (includes payroll taxes)
1 man at $500.00 per month. Cost per foot $5.68
Total cost of labor and supervision per foot $15.91

(c) Operating Materials and Supplies:

Timber	per foot	$1.70
Explosives	" "	2.00
Pipe	" "	.55
Track	" "	1.75
Drill Steel (includes bits)	" "	1.50
Gasoline	" "	1.00
Miscellaneous(hoses,tools,carbide,etc."		1.00
Total cost per foot		$9.00

(d) Operating Equipment:

Compressor (210 cu. ft.)	rental per month	$300.00
Mucking machine	" " "	200.00
Jack hammer	" " "	98.00
Mine car	" " "	20.00
Pickup Truck	" " "	70.00
	Total	$688.00
Total cost per foot		$ 7.80

(e) Rehabilitation and repairs:

None

(f) New buildings, improvements, installations:

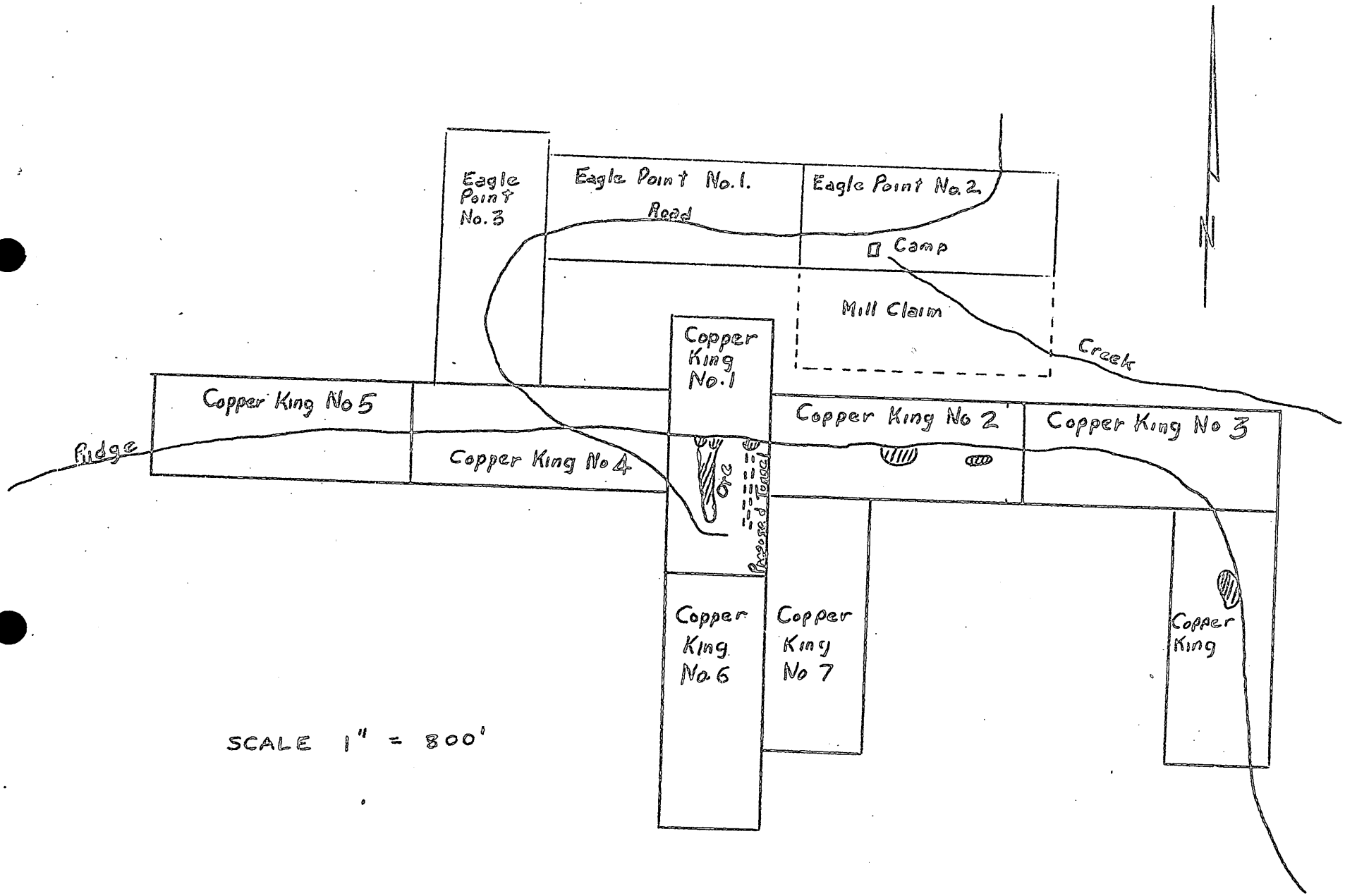
None

(g) Miscellaneous:

Repairs to equipment.	.75	per foot
Assays	.25	per foot
Total	$1.00	" "

Total cost per foot $34.12

The applicant requests that if a contract is processed that it be on a cost per foot basis.


Eagle Point No. 3
Eagle Point No. 1.
Eagle Point No. 2
Road
Camp
Mill Claim
Creek
Copper King No. 1
Copper King No 5
Copper King No 2
Copper King No 3
Ridge
Copper King No 4
Ore
Proposed Tunnel
Copper King No. 6
Copper King No 7
Copper King
N
SCALE 1" = 800'

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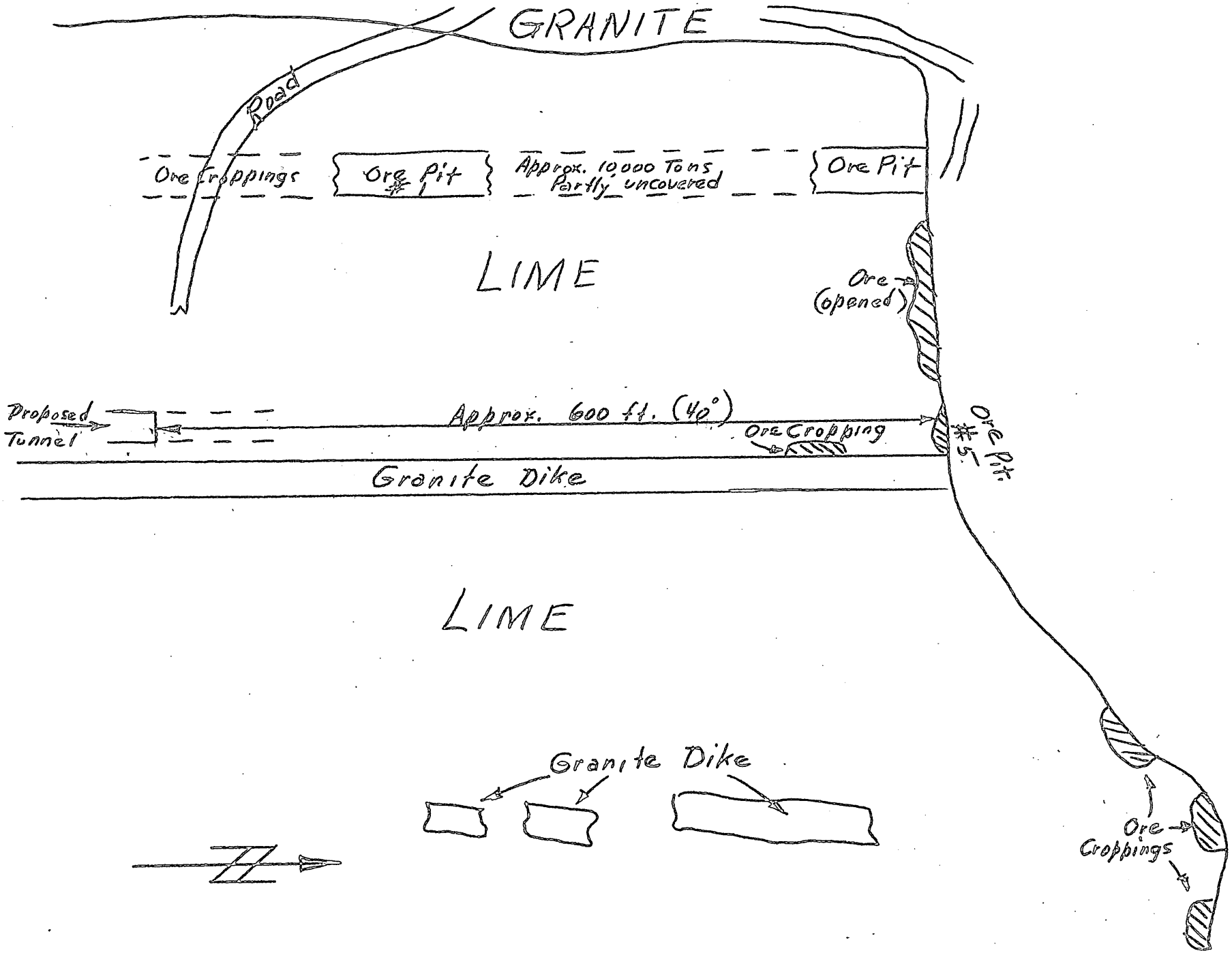
D M E A
RECEIVED MAR 11 1957

DATE	INITIALS	CODE


GRANITE
Road
Ore Croppings
Ore Pit #1
Approx. 10,000 Tons Partly uncovered
Ore Pit
LIME
Ore (opened)
Proposed Tunnel
Approx. 600 ft. (40°)
Ore Cropping
Ore Pit #5
Granite Dike
LIME
Granite Dike
Ore Croppings

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DATE	INITIALS	CODE

J. J. BEESON
MINING GEOLOGIST
DOOLY BUILDING
SALT LAKE CITY

September 29, 1955

Mr. Joseph Farnsworth, President
Amalgamated Tungsten, Inc.
48 North 6th West
Salt Lake City, Utah

Re: Copper King Claims on Notch Mountain near Delta, Utah

Dear Mr. Farnsworth:

This letter is to confirm my verbal report of September 2nd, 1955 on our return after three days (August 30 to September 2, 1955) at your tungsten property in Millard County. I had hoped to get the report to you without delay but the samples were delivered to the assayer on the above date which came just before the Labor Day weekend and the returns were not promised until the following Thursday, thus it was necessary to continue with other field work. The more important details of the examination will be included to inform those less familiar with the property.

The property is located on the summit of the north flank of Notch Mountain and 43 miles South 70° West of Delta, Utah in a region long known because of its tungsten and gold mines.

The geology of the deposits is not complex as the tungsten mineralization is associated with epidote and other high temperature minerals characteristic of contact deposits. The tungsten mineralization in this property occurs in the limestones at or close to the granite-limestone contact. The mineral light or black light produces a pale blue to yellowish fluorescence after dark which shows the scheelite (probably with some powelite) as grains from almost a quarter of an inch in diameter down to pinpoint in size, and confined almost entirely to garnet zones between granite and marblelized limestone . So far the main deposits occur along the summit of the ridge, which follows the granite limestone contact at intervals of 50 to 100 feet. The deposits are not large but may produce several hundred to more than a thousand tons of marketable ore.

At present small stock piles total around 200 tons.

At the more important surface cuts face samples were taken as follows:

Sample No	Channel length in ft.	Gold ozs	Silver ozs	Copper %	Tungsten % WO_3
1	grab	0.01	0.15	1.55	0.50
2	6 1/2	0.005	none	0.15	0.25
3	5	Trace	Trace	0.05	0.80
4	5	Trace	Trace	0.05	0.25
5	5	None	Trace	0.12	0.30
6	Grab	None	None	0.12	0.30

A description of the above samples is as follows:

JB1-83155 Grab sample of iron-copper ore on dump on copper point.

JB2-83155 6 1/2 feet across garnet bed near summit in a limestone bed along main granite contact - lowest pit.

JB3-9155 5+ ft. garnet face in lower cut 300 + - west of main granite contact granite in bottom.

JB4-9155 High grade garnet 5 ft. thick in limestone along main granite contact 3rd pit.

JB5-9155 Garnet along main granite contact in limestone 2nd on this contact going up hill.

JB6-9155 Grab sample of ore stock pile

It will be noted in the above that the No. 1 Sample assayed 1.5% Copper and might appear to have enough to add something to the value above tungsten payment if recoverable but the sample was from sorted material on the dump and the mineralization material represents only a small tonnage. The material in the surface incline (60 feet deep (-) 20° slope) appeared to have less copper, however, the scintillometer showed 500 counts per second or an estimated content of 0.05% U_3O_8. This is not high grade enough to be shipped as uranium ore but this together with other metals or tungsten justifies further exploration.

No. 2 Sample is a 6 1/2 foot vertical sample across the garnet face of the lowest pit on the summit of the contact ridge. This face extends some 15 feet to the west where it decreases in thickness and passes under surface wash. It must be bourne in mind that this sample is an average of the face when it is examined with the "mineralight" it is apparent that the scheelite is concentrated in bands between low grade bands thus it is probable that the grade can be raised by hand sorting.

No. 3 Sample, a 5 foot garnet face was taken in a pit about 300 feet westerly from the lower pit on the summit contact. The exposure is about 25 feet wide and 5 feet thick and on a granite mass dipping about 15° westerly. The black light shows a generous dissemination of sheelite through bands in the garnet. At first I was inclined to believe that this garnet bed might connect with the lower pit on the summit contact, however, a short distance above this pit the contact failed to show any substantial thickness of garnet. This does not mean that there could not be a connection but continuity must be proven by drilling through the limestone now exposed by bulldozing. The southern limit of this ore exposure has not been proven. The present pit should furnish at least a few hundred tons of good ore.

No. 4 Sample represents two 5 foot vertical cuts taken in the Third prospect up the mountain on the contact ridge. With the black light it appeared to be the highest grade sheelite sampled but the sample does not indicate it. At this location it was recommended that the surface shaft be continued in ore as far as possible. In view of the fact that the contact may be shallow a tunnel designed to cut the deposit at depth is not recommended.

No. 5 Sample is a 5 foot channel taken about 170 feet down the summit ridge to a location about 50 feet above the lowest cut on this ridge so it will be called the Second prospect cut. Here the garnet was at least 5 feet thick and was exposed about 15 feet westerly from the granite contact. It is separated from the lower pit by a bed of limestone - to the east is the main granite mass a mile or so across. This cut should furnish several hundred tons of medium grade ore.

No. 6 Sample was about 20 pounds in weight and composed of a grab and small pieces taken from boulders of ore all in a stock pile 300 foot north west of the lower pit. The returns indicate a fair grade of ore if milled in the district at reasonable costs and payment for tungsten.

The value of the above ore if shipped to combined metals may be estimated as follows:

Payment for 80% of the tungsten (WO_3) content at $46 per unit (20 pounds) of WO_3 in 50 ton lots.

Treatment charge $6.20 per ton or about as follows on 0.3% WO_3 ore.

0.3 x 80% x $46 = $11.04
Less treatment charge
6.20

Net before
mining and hauling $4.84

From this figure must come:

Hauling charge $7 per ton	$7.00
Mining cost of about	5.00
	$12.00

After considering the above payment and costs it is my opinion that the deposits are not large enough to justify a mill but in the event that a satisfactory mill is constructed in the district most of the deposits may be mined at a profit by leasing methods and upgrading the ore by sorting where possible.

Respectfully submitted,

J. J. Beeson

JJB:rp

COMBINED METALS REDUCTION COMPANY

Amalgamated Tungsten Mine, Delta, Utah

September 26, 1955

M. J. Sommers, Vice Pres.

D. H. Craig

On September 26, 1955, in the company of Mr. Ralph Baker and Mr. George Farnsworth, I visited the Amalgamated Tungsten Mine west of Delta. The mine is located at the divide between Mineral Valley and White Valley 20 miles west from Delta. The elevation is between 7500 and 8000 feet.

Mineral Valley is a large granite up-lift perhaps 1-1/2 miles wide and four miles in length. On both the north and south rims of the Valley the granite is in contact with sedimentary limestones. The west rim of White Valley is granite and the granite appears to continue to the floor of White Valley.

Tungsten has been mined for many years along the north rim of Mineral Valley on the limestone contact and the granite within Mineral Valley which contain gold, tungsten, and black sands have been the object of several unsuccessful mining ventures during the past few years. There are several tungsten prospects or mines now in operation around Mineral Valley. The Amalgamated or Farnsworth Mine contains pits and mineral exposures on the ridge between Mineral Valley and White Valley with the main workings some 200 yards down on the White Valley side.

The tungsten ore occurs in granitized limestone in contact with the granite stock. Granite intrusion limestone beds which strike generally N and dip 15° to 19° to the south. Thickness of the mineralized and granitized beds is not known, but in at least two pits there is exposure of 20 feet or more in cross section. This limestone-granite contact has been found beyond 200 yards west of the divide but this contact probably extends for a quarter of a mile or more down the Delta side.

It is a good prospect, and one of the best ways to develop the property would be to run a tunnel along this contact to cut under the dip workings near the divide and in the pit that is now being worked.

Assays of samples taken were very disappointing. Under the circumstances it appeared the grade was good and the exposure made to date indicate a considerable tonnage might be mined from this area. Mining so far has been done by stripping a thin over-burden and mining a granitized limestone by use of rock drill and bucket loader tractor.

Telephone Elgin 9-9962

Mr. J. J. Beeson
313 Dooly Bldg.
City

BEASON & NICHOLS
ASSAYERS & CHEMISTS
C. Ivan Nichols Wm. J. Beeson
160 So. West Temple Street
Salt Lake City 1, Utah

September 2, 1955

ASSAY PER TON OF 2000 POUNDS

DESCRIPTION	NO.	GOLD OUNCES	SILVER OUNCES	WET LEAD %	COPPER %	ZINC %	NICKEL %	%	Tungsten %	%	%
183155		0.01	0.15		1.55				WO3 0.50		
183155		0.005	None		0.15				0.25		
99155		Trace	Trace		0.05				0.80		
99155		Trace	Trace		0.05				0.25		
99155		None	Trace		0.12				0.30		
Rpt Spl 749155		None	None		0.12				0.30		

CHARGES $ 27.00

The ore piled up by the miners is practically all boulders, the rock being so hard there are very little fines. It would be difficult to upgrade these ore piles very much by sorting due to tungsten being in all boulders to a certain degree. The grade in the pit they are now working(.42 WO_3) is encouraging and with depth might improve.

Following are samples taken and their assays:

1. Three-foot cut across east face of the "wall." .19% WO_3

2. Muck pile in the main pit where mining is being done at the present: 0.0 Au, 0.0 Ag, .4% Pb, Tr Zn, 6.1% Fe, 59.2% Ins, 14.9% CaO, .42% WO_3

3. Sample of the muck pile in the main pit: .42% WO_3

4. Taken slightly to the south of the main pit. Cut through two feet of limestone bed above ore horizon: 42.2% CaO, 0.0% WO_3

5. Three-foot garnet bed south of the main pit: .185% WO_3

6. Thirty tons of ore piled up from pit when it was first opened: .12% WO_3

7. Same as no. 6: .22% WO_3

8. Fifty tons of boulders first hauled up hill from main pit: .17% WO_3

9. Seventy tons of ore recently mined from the lower workings. Looked good under the light: .34.5% WO_3

10. Same pile as no. 9: .17% WO_3

11. Pile of muck that was last taken from upper pit. This is pit from which shipments were previously made to Combined Metals: .31% WO_3

12. Sample of fine dirt sucked from the "well": .23% WO_3

13. This sample was taken from a powder box in which the cuttings from the drill holes were collected. These holes were used to break the muck that shows in samples 2 and 3: .24% WO_3

In summary, I believe it possible that this working could develop into a profitable mine. It appears a good tonnage of ore could be developed. Grade appears disappointing, but so far in other pits there has been improvement in depth. Method of mining near the surface appears correct but would suggest a tunnel driven from the SW side under all present exposures.

S. E. CRAIG
Gen. Supt., Utah Oper.

SEC:dj

Salt Lake City, Utah
September 19, 1952

Messrs. Kenneth Farnsworth,
Floyd Moody and L. R. Moody
2522 South 3rd East
Salt Lake City, Utah

Gentlemen:

The following notes and observations comprise a report on your mining claims in Millard County, Utah, based on an examination of your claims and adjacent property made on September 12th and 13th, 1952.

LOCATION

The six unpatented lode mining claims (Copper King Nos. 1, 2,3,4 and 5 and Copper King East Extension) and two placer locations are located in the Sawtooth Mountains in the House Range about 55 miles southwest from Delta, Utah, the railroad shipping point. The mining district apparently has not been named.

The district is reached by about 45 miles on old U.S. Highway 6 which is in fair condition and about 10 miles of newly constructed mountain road. The elevation of old U.S. Highway 6 is about 4600 ft. (at Delta). The last 10 miles of mountain road are quite steep, attaining an elevation of approximately 8,000 feet at Amassa Valley near your property.

Amassa Valley is a high basin with surrounding peaks rising 1,000 feet or more above the "Valley". On the north is a prominent bare peak known as Bald Peak and to the south is Pine Peak on the north slope of which are your mining claims.

On the west of this high basin the cliffs are almost vertical so that access from the west is practically impossible.

The road from old U.S. Highway 6 approaches the basin from the north. The basin can also be reached on foot from the head of Contact Canyon via the property of the Klondike Mining Co.

ACCESSIBILITY

From the end of the road in Amassa Valley a climb of approximately 1,000 feet is required to reach your claims over a trail about two miles long. Due to the grade of this trail, the length of road required would be about four miles. The granitic rock breaks down to a fine sand which is good road-bed material. The estimated cost of construction of this road with a bulldozer is between $750.00 and $1,000.00.

During the winter months, the district is inaccessible due to the high cost of keeping the road open.

GEOLOGICAL FEATURES

The two chief rocks in the area are limestone and an igneous intrusion of a granitic rock. The limestone is a comparatively soft rock and the granite is a coarse grained rock which breaks down to a sand. The floor of the high basin consists oargely of this sand.

On the contact between these two rocks are found quartz, both fine and coarse garnet and other contact metamorphic minerals.

This zone of contact mineralization varies in width from a foot to several feet, probably an average width of four feet.

MINERALIZATION

Associated with the contact minerals are small amounts of the tungsten mineral, scheelite. Erosion and fracturing of the contact mineralization have supplied the "Valley" placer sands with small amounts of these minerals. The tungsten mineral is distributed in the quartz and often closely associated with the small garnet crystals. Under the ultra-violet (black) lamp the scheelite specks fluoresce a light blue or silver color. The contact ore is very hard, much harder than the two country rocks. This will result in high drilling costs - the experience of the present drifting on Bald Mountain.

EXPLORATION

A small amount of exploration has been done on adjacent properties, principally on the property of the "Queen of the Hills" Company where a number of open cut trenches have been cut in the placer sands. This Company is at present driving a drift on Bald Peak to determine the width and grade of the tungsten ore. Specimens of this ore in their bin did not show any higher grade then the samples on your property.

Some few railroad cars of low grade ore have been shipped from this and other mines in the district, mostly during world war two. Data regarding assays of these shipments was not available to me, but it is reported that the tungsten content was between 1 and 6 per cent WO_3.

No recent shipments have been made, but the "Queen of the Hills" is preparing a shipment for an early date.

DEVELOPMENT ON PIPE MOUNTAIN

Your lode claims are located along the strike of the contact. I did not examine the placer claims you mentioned.

There are three prospect trenches at points of discovery. These trenches are two to four feet deep across the mineralization and from ten to twenty feet long. Also there is an old inclined shaft driven on a copper oxide deposit also on the contact. The length of this incline is approximately 50 feet. The copper ore on the dump showed small particles of scheelite under the lamp. No samples were taken of this ore.

Several other outcrops of the mineralized zone have been opened up for a few feet.

All of these exposures were examined by use of the ultra-violet (black) lamp and all showed small specks of scheelite.

Assays were made on the three that showed most promise under the lamp and the results are shown below:

	Width	% WO_3
Sample No. 1 Across Contact in Copper King #2 Disc. Hole	6 ft.	0.36
Sample No. 2 Outcrop at Disc. on Copper King East Extension	1 ft.	0.20
Sample No. 3 Surface exposure of Contact Minerals on East end Copper King #1	2 ft.	0.11

In addition to these, a sample of the concentrate from a Steffens Table was assayed. This table was set up on one of the adjacent properties in "Amassa Valley" and the table feed was an unclassified coarse sand. The assay of this crude product is given here mainly to show that these sands can be up-graded by concentration methods.

	Ounces gold per ton	% WO_3
Sample No. 4 Table Concentrate	0.01	1.20%

PLAN OF EXPLORATION SUGGESTED

If you plan to explore the possibility of finding commercial ore on your claims, a systematic plan of exploration will be necessary.

The tungsten content, though small, is encouraging, but no conclusion can be drawn until some extensive prospecting has been done.

I would suggest that the trenches on Copper King No. 1 and No. 2 be further opened up, following the mineralization along the contact strike and also on the dip.

Similar trenches and inclines should also be cut at intervals of about 200 feet between the present cuts where there are outcrops of the contact deposit.

One of the encouraging outcrops is that on or near the east end of Copper King No. 1 claims where sample No. 1 was taken. Due to the irregular contour of the intrusive, the dip of the contact mineralization will be variable.

Careful sampling and assaying of these cuts should be made at about 5 foot intervals and an Assay Map made of all samples.

From the east end of your claims the ground pitches steeply to the southeast in a gulch known as Contact Canyon. The outcrops of the contact material are numerous and close together down this canyon toward the property of the Klondike Mining Company where higher grade ore is reported.

I would suggest that you sample and assay these outcrops and if the results are encouraging that you search the records in the County Recorder's office to ascertain if this ground is open for filing. The present status of the claims of the old "Eagle Mines Co." (the Damfino Claim in particular) should be determined.

I would further recommend that, in case you decide to do this development work, you purchase a gasoline or diesel unit, compressor and drilling equipment.

Also I believe the prospect trenches can be more cheaply cut by drilling and excavating in either the softer limestime or the granite than by mining in the hard "ore" itself. By this method the "ore" could be exposed for sample cuts at regular intervals without blasting and removing the non-commercial ore.

CONCLUSIONS

The surface exposures of ore are too low in tungsten to be of commercial value in view of the long haul to shipping point, high cost of mining, lack of water for milling, etc.

Not enough development work has been done to make any estimate of probable tonnage of this material. However, there is a possibility that ore of a higher grade may be found at some distance from the surface. The fact that some of the large exploration companies are evincing interest in the district is encouraging. And the contemplated erection of a concentrating mill at or near Delta would also brighten the outlook.

I am inclined to think that the placer sands in Amassa Valley offer some possibilities, providing, of course, that an adequate supply of water can be stored for concentrating purposes. I would suggest, therefore, that you acquire any of this type of ground that is open for filing.

Respectfully yours,

Encl. Assay Certificates
I have paid these charges.
R.J.G.

Robert J. Goodwin
B.S. In Mining
M.S. in Metallurgy
3521 Hillside Lane
Salt Lake City 6, Utah

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10-23	Chapman	400
10-23	Martin	400
10/25	[illegible]	130
10/25	[illegible]	130
10/25	Williams	130
"	Johnson	110
"	Mittendorf	100
		220

OCT 25 1957

Amalgamated Tungsten, Inc.
48 North 6th West
Salt Lake City, Utah

Re: Docket No. DMEA 4677 - Tungsten
Copper King and Eagle Point claims
Millard County, Utah

Gentlemen:

Your application for exploration assistance and other data available to us in Washington concerning the referenced 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 the occurrence of tungsten mineralization on your property, indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. Under these conditions we regret to advise you that your application is denied.

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

Enclosed are report, correspondence and assay returns, which are being returned as you requested.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosures
TLCHAPMAN:foc 10-23-57
cc to: Code 400
Admr. R. File
Oper. Comm.
FT REG. III

cc to: R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

Mr. Selfridge

Returned by Dr 4-5-58

Suggested substitute for second paragraph

We question the suitability of this proposed project under the DMEA program. It does not appear that the proposal meets our criteria, especially as to geologic probability of making a significant discovery. The discovery of a deposit of the grade and quantity expected by the proposed work could hardly be termed significant. There is also doubt that such a deposit could be profitably mined even under high market prices existing in an emergency. The proposed work has the aspects of development because of the close spacing of the drill holes. We note that the mineralization is erratic and, therefore, would present problems of selective mining or higher dilution. It would seem that a deposit of the grade expected would have to be comparatively uniform in WO_3 content over a very large area in order to be mineable. Therefore, if such a deposit could not be reasonably sampled and delineated by widely spaced holes it would not be a suitable target for DMEA assistance.

$\frac{400 \times 300 \times 8}{12} = 80{,}000\ T - 0.30\%\ WO_3$

Recoverable 24% WO_3

4677

MR. SELFRIDGE:

The denial was removed from agenda on 8/26/57.

I gather the denial is to be held until FT replies?

As you will note there are 2 letters to FT. Would suppose the 2-page letter is to be used as it was written at later date & is complete with copies.

HB

DMEA Form
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9.3	Chapman	400
9-3	Martin	400
		130
		110
		100
		220
		400

Mr. William H. King, Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4677 - Tungsten
Amalgamated Tungsten, Inc.
Copper King and Eagle Point claims
Millard County, Utah

Dear Mr. King:

Reference is made to the Geologic Report of Frank B. Moore, Geological Survey and Engineering Report of P. V. Fillio, Bureau of Mines, recommending a contract for diamond drilling on the above-noted project, and the concurrence of the Field Team by its memorandum of July 29, 1957.

It appears to us that the project is sub-marginal, and we question whether it could be economically operated even during periods of high market prices. It is possible that all the ore might be found within the triangle noted in the geological report, with sides of 400 feet and with a thickness as little as 5 feet; not over 30,000 tons would be indicated, but if mineralization was found in the area covered by the drill holes (500 X 600 feet) and a thickness of 8 feet, there would be approximately 200,000 tons indicated. As the limestone is described as a roof pendant and ore could be above and below a monzonite sill, the ore tonnage could be substantially increased. It is indicated that the ore would average about 0.30 percent WO_3 and such ore would be difficult to mine economically. The general dip of the formation would preclude open pit mining except for a relatively small tonnage. The relatively thin ore body (8 feet or less) would be from 10 feet to 85 feet below the surface. Underground mining on this type of ore body would be costly.

Also, while it appears that the claims recommended for inclusion in the contract cover the proposed drill area, we believe this area would have to be extended if a contract were to be written.

8623

Because of the adverse considerations discussed above, a denial without prejudice may be in order and we would appreciate any further comments you may have on the proposed project.

Sincerely yours,

Chairman, Operating Committee

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

TLChapman/dlm 9-3-57
cc to : Cole 400
Admr. R. File
Oper. Comm.
FT. REG III
R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

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

Mr. William H. King, Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4677 - Tungsten
Amalgamated Tungsten, Inc.
Copper King and Eagle Point claims
Millard County, Utah

Dear Mr. King:

Reference is made to the Geologic Report of Frank B. Moore, Geological Survey and Engineering Report of P. V. Fillio, Bureau of Mines, recommending a contract for diamond drilling on the above-noted project, and the concurrence of the Field Team by its memorandum of July 29, 1957.

It appears to us that the project is sub-marginal, and we question whether it could be economically operated even during periods of high market prices. It is possible that all the ore might be found within the triangle noted in the geological report with sides of 400 feet and with a thickness as little as 5 feet, not over 30,000 tons would be indicated, but if mineralization was found in the area covered by the drill holes (500 X 600 feet) and a thickness of 8 feet there would be approximately 200,000 tons indicated. As the limestone is described as a roof pendant and ore could be above and below a monzonite sill the ore tonnage could be substantially increased. It is indicated that the ore would average about 0.30 percent WO_3 and such ore would be difficult to mine economically. The general dip of the formation would preclude open pit mining except for a relatively small tonnage. The relatively thin ore body (8 feet or less) would be from 10 feet to 85 feet below the surface. Underground mining on this type of ore body would be costly.

Also, while it appears that the claims recommended for inclusion in the contract cover the proposed drill area, we believe this area would have to be extended if a contract were to be written.

Because of the adverse considerations discussed above, a denial without prejudice may be in order and we would appreciate any further comments you may have on the proposed project.

Sincerely yours,

Chairman, Operating Committee

APPROVED:

A. D. McMahon
Member, Bureau of Mines

Walter H. Eisenhard
Member, Geological Survey

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Chapman	400
	Martin	400
8/26	Selfridge	130
8/26	Hopkins	130
8/24	Killagaard	130
		110
		106
		225
		400

Amalgamated Tungsten, Inc.
48 North 6th West
Salt Lake City, Utah

Re: Docket No. DMEA-4077, Tungsten
Copper King and Eagle Point claims
Millard County, Utah

Gentlemen:

Your application for exploration assistance and other data available to us in Washington concerning the referenced 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 minerals supply position of the National Defense Program.

Careful study of all our information, although noting the occurrence of tungsten mineralization on your property, indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application is denied.

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

Sincerely yours,

Administrator

TLChapman:ms 8/23/57
Copy to: Docket
Code 400
Admr. R. File
Operating Committee
FT REG III
Messrs: R. W. Holliday, USBM
T. H. Killagaard, USGS

8623

Mr. Selfridge -

Suggest letter to Field Team giving objections and advising that we are inclined to deny.

Frank E. Johnson

Applicant wishes reports returned

Docket Copy
Surname:
Chapman
Martin

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

August 23, 1957

Memorandum

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Denial of the subject application for exploration assistance in the amount of $20,000.00
Docket No. DMEA-4677, Tungsten
Amalgamated Tungsten, Inc.
Copper King and Eagle Point claims
Millard County, Utah

Denial of the subject application is recommended by this Division on the following information.

The Applicant, Amalgamated Tungsten, Inc., requested exploration assistance in the amount of $20,000.00 for access road, preparation of tunnel site and driving a 590-foot tunnel. A field examination of the property was made on April 18, 1957, by Frank B. Moore, Geological Survey and P. V. Fillo, Bureau of Mines, accompanied by M. H. Howes, Bureau of Mines, and K. E. Farnsworth, president, Amalgamated Tungsten, Inc.

Applicant: Amalgamated Tungsten, Inc.
48 North 6th West
Salt Lake City, Utah

Property Ownership: The property consists of 12 unpatented lode mining claims held by the Applicant by right of location and recorded as follows:

Claim Name	Book No.	Page No.
Copper King	4	211
Copper King No. 1	13	38
Copper King No. 2	4	211
Copper King No. 3	4	212
Copper King No. 4	4	213
Copper King No. 5	13	27
Copper King No. 6	14	117-A
Copper King No. 7	14	118-A
Eagle Point No. 1	14	415
Eagle Point No. 2	14	415
Eagle Point No. 3	14	416
Eagle Point Mill claim	15 NL	16

Claims are recorded in Fillmore, Millard County, Utah.

Geology:

The property lies in the northern edge of the Notch Peak intrusive of the House Range. Sedimentary beds of limestone are intruded by quartz monzonite. Quartz monzonite dikes and sills are found in the surrounding area.

The tungsten mineralization occurs at the limestone-monzonite contact in a zone of tactite approximately 8 feet thick. Some scheelite is disseminated in the bedding planes and fractures.

History and Production:

The claims were located in July, August and September of 1952, and in September and December of 1955.

At those times, roads were bulldozed on the property and five small pits were excavated. The production record is as follows: 150 tons to Combined Metals, at Bauer, Utah, and 75 tons to the Metcalf mill 30 miles from the property. These shipments averaged 0.20 to 0.30 percent WO_3.

Ore Values and Tonnage:

Samples taken assayed as follows:

Sample No.	Location	Percent WO_3
1	Grab sample, pit No. 1	0.29
2	Grab sample from stock pile, east side of big pit	0.35
3	18 inch chip sample of pit No. 5	0.74
4	Grab sample from stock-pile, west side of big pit	0.25

General indications are that a moderate tonnage of ore can be developed that will average 0.20 to 0.30 percent WO_3.

As the scheelite mineralization appears to be erratic, it is difficult to make any estimate of tonnage.

Proposed Exploration:

The Applicant proposed bulldozing an access road, preparing a tunnel site and driving 590 feet of tunnel.

The Field Team proposed bulldozing access roads and preparing drill sites for 22 diamond drill holes with a maximum footage of 1,210 feet. Holes to be not less than AX in size. The total cost of project estimated to be $11,440.00.

A draft of a contract prepared by this Division with an estimated cost of $11,840.00

Comments and Recommendations:

The Field Team examiners concluded that the probability of making a significant discovery is sufficiently promising to justify Government participation.

The Commodity Divisions of the Geological Survey and the Bureau of Mines, concur in the conclusions and recommendations of the Field Team.

Our denial is written on the basis that although a moderate tonnage of ore could probably be developed, the overall grade would be too low to be mineable in the foreseeable future.

W S Martin

W. S. Martin, Director
Iron and Ferro-Alloys Division

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10-23	Chapman	400
10-23	Martin	400
		110
		100

October 23, 1957

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys

Subject: Denial of the subject application for exploration assistance in the amount of $20,000.00
Docket No. DMEA 4677 - Tungsten
Amalgamated Tungsten, Inc.
Copper King and Eagle Point claims
Millard County, Utah

The above-noted property was the subject of a request for exploration assistance on February 27, 1957, for 590 feet of drifting and/or crosscutting at a cost of $20,000.00. The property was examined on April 18, 1957, by Frank B. Moore, Geological Survey, and P. V. Fillo, Bureau of Mines. M. H. Howes, Bureau of Mines, and K. E. Farnsworth, president of the Amalgamated Tungsten, Inc., accompanied the examining team. In lieu of work proposed by the applicant the Field Team recommended a diamond drilling campaign of 22 holes for a total of 1,210 feet, at an estimated cost of $11,440.00.

This Division drafted a contract following the Field Team recommendations, but after a conference it was held in abeyance pending the Field Team's reply to a letter from the Operating Committee, dated September 9, 1957, questioning the advisibility of a contract. The examining engineer's and the Field Team's memoranda of September 20 and October 7, 1957, respectively, advise that the project is borderline and that a denial would not be out of order.

A denial of the subject application is recommended by this Division based on the following information:

Applicant: Amalgamated Tungsten, Inc.
48 North 6th West
Salt Lake City, Utah

Property Ownership: The property included in Annex 1 of a proposed contract, consists of 8 unpatented lode mining claims, which were located by the applicant in the Pines Peak Area, Millard County, Utah and are recorded as follows:

Claim	Book No.	Page No.
Copper King	4	211
Copper King No. 1	13	38
Copper King No. 2	4	211
Copper King No. 3	4	212
Copper King No. 4	4	213
Copper King No. 5	13	27
Copper King No. 6	14	117-A
Copper King No. 7	14	118-A

Geology: The property lies in the northern edge of the Notch Peak intrusive, Tertiary monzonite stock. The sedimentaries of the area are intruded and underlain by the monzonite. Tactites are formed along the contact zone with the limestones. Scheelite is disseminated in the bedding planes and fractures of the tactite zone.

Development: The exploration and development work on the property consists of 5 open cuts that indicate a mineralized tactite zone up to 8 feet thick.

Ore Values and Tonnage: Samples taken indicate the following values:

sample No.	Description	Percent WO_3
1	Grab sample, Pit No. 1	0.29
2	Grab sample from stockpile each of big pit	0.35
3	18 inch chip sample, Pit No. 5	0.74
4	Grab sample from stockpile, west side of big pit	0.25

The scheelite mineralization is erratic and any estimate of ore reserves is difficult to make.

Comments & Conclusions: The Field Team concludes that a moderate tonnage of ore could be indicated and inferred, averaging 0.20 to 0.30 percent WO_3. The final memorandum of the examining engineers concludes that the project is borderline and the Field Team concludes that under the conditions a denial is justified.

The Commodity Divisions of the Geological Survey and Bureau of Mines concurred in the first report of the Field Team recommending

a diamond drilling contract. The same Commodity Divisions, after receipt of Memoranda of September 20 and October 7, 1957, from the examining engineers and the Field Team, respectively, advised in memoranda of October 15 and 21, 1957, respectively, that a denial was in order.

W S Martin

W. S. Martin, Director
Division of Iron and Ferro-Alloys

TLChapman/foc
10-23-57
cc to: Docket
Code 400
Admr. R. File
Oper. Comm.

OFFICIAL FILE COPY DMEA RECEIVED OCT 22 1957		
DATE	INITIALS	CODE
10/22	gh	220
10/22	WSM	400

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

Date October 21, 1957

DMEA Docket No. 4677
DMEA Contract No.
Commodity Tungsten
Name of applicant Amalgamated Tungsten, Inc.
Name of property Copper King & Eagle Point Cl.
Location of property Millard County, Utah
Estimated cost of project

To: W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Chief, Branch of Ferrous Metals and Ferroalloys

From: R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Subject: Review of Memorandum (E. M. Harshman to Chairman operating Committee)
(Application, Hold Team Report, etc.)

1. Date of subject document: Oct. 7, 1957 2. Date received by reviewer: Oct. 15, 1957

3. Other reports on this property known to reviewer: Yes [ ] No [X]

4. Other reports on nearby properties known to reviewer: Yes [ ] No [X]

5. Information available on past production: Yes [ ] No [X]

6. Other pertinent factors known to reviewer: Yes [ ] No [X]

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 Hold Team [ ]
c. Denial [X]
d. Agree with Hold Team [ ]
e. Consult with Mr. _____ at _____ AEC office.
f. Disagree with Hold Team [ ]
g. Suggest alternate plan [ ]
h. Request another examination [ ]
i. Approval [ ]

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

I recommend denial of this application.

R. W. Holliday

R. W. Holliday

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

OFFICIAL FILE COPY
DMEA
IN REPLY REFER TO:
RECEIVED OCT 18 1957

DATE	INITIALS	CODE
10/18	C	220
10/18	WSM	400

Memorandum

October 15, 1957

To: W. S. Martin, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of Field Team memorandum, DMEA 4677 (tungsten), Amalgamated Tungsten, Inc., Copper King and Eagle Point claims, Millard County, Utah.

The field examiners recommended approval of the application in a field report dated July 1, 1957. The Operating Committee, however, in a letter to the Executive Officer, Region III, dated Sept. 9, 1957, questions the suitability of the proposed project under the DMEA program. The Committee feels that the work would probably not result in a worthwhile discovery, and some of the work seemed to be developmental in nature. The Executive Officer was asked for further comments.

The Acting Executive Officer and the examining team now agree that the work might be developmental and would not make a significant discovery. I agree with the Acting Executive Officer that the application should be denied outright rather than without prejudice.

W. P. Williams

W. P. Williams

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	242	130
10/15	C	220
10/15	WSM	400

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: DMEA Docket 4677 (Tungsten) Amalgamated Tungsten, Inc. (Copper King and Eagle Point Claims) Millard County, Utah

Enclosed are the original and two copies of a joint memorandum by F. B. Moore, U. S. Geological Survey and P. V. Fillo, U. S. Bureau of Mines. The memorandum was prepared at our request after receipt of your letter of September 9, 1957, questioning the propriety of exploration on the subject claims.

In the geologic report of examination, it is pointed out that it is doubtful that this or any other individual deposit in the area can be considered significant, but that as part of a large (several square miles) area of scheelite bearing tactite beds, exploration on the Copper King Claims might be warranted. I believe this reasoning to be sound.

Although I am not in full accord with the economic implication of your September 9 letter, a careful review of the recommendations of the field examiners and the Field Team leads me to concur with your belief that the proposed program of exploration is development and more extensive than warranted by the probable size and grade of any ore deposit that might be discovered.

I believe that recommendations for denial without prejudice should be limited to those instances where insufficient evidence is available to adequately appraise a proposed exploration program. In this instance the character of the deposit is rather well known and I therefore recommend a straight denial.

E. N. Harshman

E. N. Harshman
Acting Executive Officer

Reviewed by
DMEA OPERATING COMMITTEE
10-14-57
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 12, UTAH

DMEA
DEPARTMENT OF THE INTERIOR
SEP 27 1957
REGION III
DENVER, COLORADO

September 20, 1957

Memorandum

To: Acting Executive Officer, DMEA Field Team, Region III
Through: E. N. Harshman

From: F. B. Moore
P. V. Fillo

Subject: Docket No. DMEA-4677 (Tungsten), Amalgamated Tungsten, Inc. (Copper King and Eagle Point claims), Millard County, Utah

In a letter to the Executive Officer, DMEA Field Team, Region III, the Operating Committee, DMEA, questioned the suitability of exploring the subject property under a DMEA program on grounds that the deposit did not appear to be significant because of size and erratic distribution of ore. The examining team must admit that the points are well taken.

The examiners have no strong feelings on the program either way. The property was recommended with the realization that, by itself, it probably could not be mined at a profit. The recommendation was made on grounds that the grade of ore is as good as at other properties in the district and that the term "significant" depends, to a certain extent, on the size of the program. Also affecting the decision was the fact that two nearby properties, the Duke Page property, DMEA-1906, and the New Klondike mine area, DMEA-2825, had previously received DMEA loans. Both these properties are geologically similar to the Copper King, but with areas available for exploration larger than at the Copper King. The question is thus largely one of size; the size of the Copper King mineralized area is such that it must be considered a borderline case.

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F. B. Moore
F. B. Moore, Geological Survey

P. V. Fillo
P. V. Fillo, Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
10-14-57
(Date)

attachment

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DATE		CODE
9-16	C	220
9/16	WSM	400

224 New Customhouse
Denver 2, Colorado
September 13, 1957

Memorandum

To: DMEA/SLC - Attn: P. V. Fillo
F. B. Moore

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

Subject: Docket DMEA-4677 (Tungsten) Amalgamated Tungsten, Inc., (Copper King and Eagle Point Claims) Millard County, Utah

Enclosed is a copy of a letter dated eptember 9, 1957, from the Chairman, Operating Committee, DMEA, which questions the suitability of the proposed subject project to be included under the DMEA program.

We will appreciate a memorandum on your reaction to the Chairman's comments at your earliest convenience.

Original signed by H.M. Connors
for E. N. HARSHMAN
E. N. Harshman

Enclosures

MHM:hmh
cc: Chmn. Op. Comm. (2)
Harshman, w/copy of Ltr. of 9/9/57
Docket
Chron

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9-6	Chapman	400
9-6	Martin	400
9/6	[illegible]	130
"	Johnson	110
		~~400~~
9/9	[illegible]	220
		400

SEP 9 1957

Mr. William H. King, Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4677 - Tungsten
Amalgamated Tungsten, Inc.
Copper King and Eagle Point claims
Millard County, Utah

Dear Mr. King:

Reference is made to the Geologic Report of Frank B. Moore, Geological Survey, and Engineering Report of P. V. Pillo, Bureau of Mines, recommending a contract for diamond drilling on the above-noted project, and the concurrence of the Field Team by its memorandum of July 29, 1957.

We question the suitability of this proposed project under the DMEA program. It does not appear that the proposal meets our criteria, especially as to geologic probability of making a significant discovery. The discovery of a deposit of the grade and quantity expected by the proposed work could hardly be termed significant. There is also doubt that such a deposit could be profitably mined even under high market prices existing in an emergency. The proposed work has the aspects of development because of the close spacing of the drill holes. We note that the mineralization is erratic and, therefore, would present problems of selective mining or high dilution. It would seem that a deposit of the grade expected would have to be comparatively uniform in WO_3 content over a very large area in order to be minable. Therefore, if such a deposit could not be reasonably sampled and delineated by widely spaced holes it would not be a suitable target for DMEA assistance.

Also, while it appears that the claims recommended for inclusion in the contract cover the proposed drill area, we believe this area would have to be extended if a contract were to be written.

8623

Because of the adverse considerations discussed above, a denial (without prejudice) may be in order and we would appreciate any further comments you may have on the proposed project.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (DB)

TLChapman/dlm 9-6-57
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. III
Messrs. R.W. Holliday, USBM
T.H. Kiilsgaard, USGS

APPROVED:

/s/ O.M. Bishop (DB)
Member, Bureau of Mines

Thor H. Kiilsgaard (DB)
Member, Geological Survey

8-16-57

elfridge:

Insufficient tonnage on property for large scale mine of ore grade expected. Operation has no control over other possible areas.

Irregularity of mineralization makes feasibility of even a low grade mine a remote possibility. Probability of making a significant discovery doubtful even with proposed development drilling. Government participation appear~~s well~~ does not to be justified even at a $46.00 price.

FEJohnson

not used

MF-200
(Revised June 1954)

Docket No. DMEA 4677

Commodity Tungsten

Contract No. Idm-E

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]

It is agreed this ..... day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Amalgamated Tungsten, Inc. A Utah Corporation, ..., whose mailing address is 48 North 6th West, Salt Lake City, Utah, ..., hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and 3 maps .....

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Utah, County of Millard, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Owner by right of location of [5] Annex 1 in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] ....., [7] ..... recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: none .....

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

of the land (lessor, seller, optionor, etc.), are attached, as follows: .....

.....

.....

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Tungsten The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before December 31, 1957 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall either have completed the work or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A." See Article 13

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Independent contracts.*—To the extent that the allowable costs are estimated in Exhibit "A" with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed; but if the reference in Exhibit "A" to any such independent contract requires the Government's approval thereof, payments under such contract will not be allowable costs unless the Government gives its written approval of the contract. Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract and regardless of the Government's approval thereof, the Government will participate in payments to the independent contractor only on account of work performed in accordance with the provisions of this exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $ 11,840.00 The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $8,880.00 : *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work or not in excess of the amount of the Government's contribution to the cost of property which is or may become subject to disposal as provided in Article 9(c), whichever is greater. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 7(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. "Costs incurred" mean costs that have been paid or have become due and payable, or that in the opinion of the Government have become an obligation. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; but except for any such necessary excesses in categories, subcategories, or items thereunder the Operator is not obligated to incur more than his agreed percentage of the estimated, total allowable cost of the work.

To the extent specified in this article or in Exhibit "A" the following categories, subcategories, and elements thereof are maximums; but if not so specified either here or in Exhibit "A" they are not maximums, and may be exceeded within the limit of the estimated total allowable cost of the work:

CATEGORY (1)—INDEPENDENT CONTRACTS.—Work to be performed under independent contracts (see Article 4(b)). The estimated total amount of this category and the estimated cost of each unit of work for performance under an independent contract are maximums.

CATEGORY (2)—PERSONAL SERVICES.

Subcategory (a)—Supervision.—All elements of this subcategory (number of supervisors, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)—Technical services.—All elements of this subcategory (number of technicians, periods of employment, rates of pay, and total) are maximums.

Subcategory (c)—Labor.

CATEGORY (3)—OPERATING MATERIALS AND SUPPLIES.—Includes such items as drill bits and steel, explosives, fuel, pipe, power, small tools costing less than $50 each, timber, track.

CATEGORY (4)—OPERATING EQUIPMENT.

Subcategory (a)—Rental.—The number of each object to be rented [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)—Purchases.—The estimated total of this subcategory is a maximum.

Subcategory (c)—Depreciation.—All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)—INITIAL REHABILITATION AND REPAIRS.—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

Subcategory (a)—Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).—The estimated total of this subcategory is a maximum.

Subcategory (b)—Initial rehabilitation and repairs of operating equipment.—The estimated total of this subcategory is a maximum.

CATEGORY (6)—NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

CATEGORY (7)—MISCELLANEOUS.—Repairs and maintenance (other than initial) of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, communications, and any other items of requirement or cost that do not fall within any of the first 6 categories.

THE ESTIMATED TOTAL ALLOWABLE COST of the work is a maximum.

(b) *Nonallowable costs.*—The following costs are not allowable for contribution by the Government:

(1) *Costs of the land,* such as rental, depreciation, depletion, or other cost of acquiring, owning, or holding possession;

(2) *Indirect costs,* such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) *Previous work* performed or costs incurred before the date of this contract; and

(4) *Deferred payments.*—Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods; unless the purchase agreement is approved by the Government in writing.

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9.

ARTICLE 7. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. If the Government elects to audit said records and accounts relating to the exploration work by certified public accountant, it may do so as a cost of the work to which the Operator shall contribute. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing detailed costs incurred during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and costs incurred for each type of work; and (3) a Narrative Report of the work performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and related costs incurred.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 8. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 7) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value therof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½)

percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

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

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 9. *Interests in purchased property.*—(a) *Title and ownership.*—All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions, although title thereto shall be taken in the name of the Operator.

(b) *Preservation of property.*—Until the final disposal of any property in which the Government has an interest the Operator shall preserve and protect same for the best interest of the Government, any reasonable and necessary costs thereof to be treated as an allowable cost of the project. After the completion of the work or termination of the Government's obligation to contribute, or when such property is not in use for or needed for the work, the Operator shall neither use it without the written consent of the Government nor without paying a reasonable rental to be fixed by the Government for its interest.

(c) *Disposal of property.*—Upon the completion of the work or termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator or the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government the Operator shall not sell at any price any item of property the cost of which was more than $500, and shall not sell at less than 25 percent of the purchase price any item of property which cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or himself cares to give. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, or explosives, or pipe, or rails), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the project.

(d) *Default of the Operator re disposal.*—If within 90 days after the completion of the work or termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, or after such further time as the Government may in writing allow, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may pursue one of the following two courses: (1) the Government, by written notice to the Operator, may place upon such property what in its opinion is a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the

date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; or (2) the Government may enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 10. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon: (1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon: (1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 10 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 11. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 12. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 13. *Changes and added provisions.*—

(a) In Article 3, the words following the reference to Article 10 are deleted, and the following words are substituted "shall have completed the work"

(b) In Article 6(a), that part of the last sentence in the first paragraph beginning after the semi-colon is deleted.

(c) In Category 1 of Article 6(a), the phrase "the estimated cost of each unit of work" shall be constructed to mean, for the purposes of this contract: "the average cost per foot of drilling and per hour of bulldozing.

(d) Categories (2) through (7) of Article 6(a) are deleted.

16—70617-1

(e) In Article 6(c), the words "Article 9" are changed to "Article 8"

(f) In addition to the costs of work estimated in Exhibit "A" by the categories of actual costs, the cost of work requirements specified in Exhibit "A" ~~xxxxxxxxxxxxxxxx~~ as "Fixed Unit Costs" are allowable costs of the project. The Government will contribute to the fixed unit costs as work units are performed. A "Fixed Unit Cost" is an agreed price for each unit of work to be performed regardless of costs incurred by the Operator. Costs set forth in Exhibit "A" include all allowable costs of the work to be performed under the contract.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By .....

.....
(Operator)

By .....

.....

I, ..., certify that I am the ..... secretary of the corporation named as Operator herein; that ..... who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70617-1

EXPLORATION PROJECT CONTRACT
AMALGANATED TUNGSTEN, INC.
DOCKET NO. DMEA-4677

ANNEX NO. 1

The land referred to in Article 2 of the contract form, and shown on attached Figure 2, consists of 8 unpatented lode mining claims situated in the Pine Peaks area, Millard County, Utah, and are recorded as follows:

Claim Name	Book No.	Page No.
Copper King	4	211
Copper King No. 1	13	38
Copper King No. 2	4	211
Copper King No. 3	4	212
Copper King No. 4	4	213
Copper King Np. 5	13	27
Copper King No. 6	14	117-A
Copper King No. 7	14	118-A

The property ~~has been~~ WAS located by the applicant.

EXPLORATION PROJECT CONTRACT
AMALGAMATED TUNGSTEN, INC.
DOCKET NO. DMEA-4677

EXHIBIT A

Description of the Work

Attached maps are as follows:

Figure 1, Index Map pf Utah, Showing Location of Copper King Claims, Millard County, Utah.

Figure 2, Claim Map, Amalgamated Tungsten, Inc.,Millard County, Utah.

Figure 3, Geologic Map, Showing Locations of Recommended Drill Holes, Copper King Claims, Millard County, Utah.

Bulldoze, by ~~xg~~ independent contract, access roads and drill sites with a D-8 bulldozer or equivalent unit of another make.

Diamond drill, by independent contract, 22 holes vertically and not less than AX in size. The holes shall be located at approximately 75 foot intervals (Figure 3). The holes shall be drilled through the scheelite bearing tactite and about three feet into the underlying quartz-monzonite. Water for drilling shall be furnished by the Operator. The depth of holes shall be approximately as follows:

Hole No.	Depth feet.	Hole No.	Depth feet	Hole No.	Depth feet
1	30	8	45	15	25
2	35	9	65	16	35
3	60	10	20	17	95
4	25	11	40	18	100
5	35	12	65	19	100
6	70	13	35	20	100
7	20	14	50	21	90
				22	70
	Estimated total				1,210 feet

All cores shall be stored in wooden core boxes. When the ground does not core well sludge samples ~~should~~ SHALL be taken.

The work shall be supervised by an engineer-geologist, who shall supervise the sampling of mineralized zones and map the drill holes geologically.

Samples shall not be over 5 feet in length and shall be assayed for WO_3 and when so indicated, ~~assay~~ for molybdenum

ESTIMATED COST OF THE PROJECT

Actual Costs

Category 1, Independent Contracts

Bulldoze access roads and drill sites 22 drill sites at $10.00 each	$ 220.00	
Diamond drilling, 1,210 feet at $7.50/ft. Includes cementing, re-drilling, and/or reaming and casing	9,075.00	
Total of Independent Contracts		$9,295.00

Fixed Unit Costs

Incidental allowance 1/ for each foot of drilling completed. 1,210 feet at $1.90/ft.		2,299.00
Assaying 45 samples for ~~mercury~~ tungsten at $4.00 each	180.00	
Assaying 22 samples for molybdenum at $3.00 each	66.00	
Total for assaying		246.00
Estimated total for project		$11,840.00
Government participation, 75 percent		$8,880.00

1/ Includes all costs whatsoever that are not included in the estimates for Category 1, Independent Contracts, and for chemical analysis, under Fixed Unit Costs and is in lieu of all other costs, such as supervision, core boxes, payroll taxes, transportation, material and supplies, etc. which would would be otherwise allowable under Categories 2 through 7 of the contract

OFFICIAL FILE COPY DMEA RECEIVED AUG 15 1957		
DATE	INITIALS	CODE

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

Date August 13, 1957

DMEA Docket No. 4677
DMEA Contract No.
Commodity Tungsten
Name of applicant Amalgamated Tungsten, Inc.
Name of property (Copper King & Eagle Point)
Location of property Millard County, Utah
Estimated cost of project

To: W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Chief, Branch of Ferrous Metals & Ferroalloys

From: R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals & Ferroalloys

Subject: Review of Report of Examination by Field Team
(Application, Field Team Report, etc.)

1. Date of project document: 7/57 2. Date received by reviewer: 8/8/57

3. Other reports on this property known to reviewer: Yes [ ] No [X]

4. Other reports on nearby properties known to reviewer: Yes [ ] No [X]

5. Information available on past production: Yes [ ] No [X]

6. Other pertinent factors known to reviewer: Yes [ ] No [X]

7. Explain items marked yes above:

8. Factors meeting special consideration:
a. Location [ ]
b. Commodity [ ]
c. Evidence of mineralization [ ]
d. Geology [ ]
e. Proposed exploration method [ ]
f. Alternate exploration method [ ]
g. Costs [ ]
h. _____ [ ]

9. Action recommended:
a. Obtain information from applicant [ ]
b. Refer to Field Team [ ]
c. Denial [ ]
d. Agree with Field Team [X]
e. Disagree with Field Team [ ]
f. Suggest alternate plan [ ]
g. Request another examination [ ]
h. Approval [X]
i. Consult with Mr. _____ at _____ AEC office.

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

1

R. W. Holliday
R. W. Holliday

IN REPLY REFER TO:

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

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DMEA
RECEIVED AUG 2 1957

DATE	INITIALS	CODE
8-2	C	220
8/2	WSM	400

August 1, 1957
Re: DMEA 4677
Amalgamated Tungsten, Inc.
Copper King, etc. claims
Millard County, Utah
Applicant's Estimate $20,000
Recommended Estimate $11,440 - Tungsten

Memorandum

To: ~~W. S. Martin~~, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Report

The applicant requested assistance in exploring by underground work (tunneling) a shallow scheelite-bearing metamorphosed contact or tactite type remnant of limestone 'caught up' in quartz monzonite.

From openings near the edge of the altered limestone, in which tactite is well developed, low grade tungsten ore has been mined and some shipped. The roof pendant is crosscut by two quartz monzonite dikes. Probably the pendant mass has little depth, but that seems not to have been determined. The geologist estimates a maximum depth of about 100 feet for the drill holes proposed by the examiners, and the engineer estimates the depth of the deepest proposed hole to be 180 feet.

If a minable parting of scheelite-bearing tactite exists between the limestone and the monzonite, a fair tonnage of material may be inferred. The diamond drilling appears to be the best method for exploring the possibilities.

I concur with the recommendation of the examiners and Field Team.

N. E. Nelson

N. E. Nelson

224 New Customhouse
Denver 2, Colorado

July 30, 1957

Memorandum

To: DMEA/SLC (Att: P. V. Fillo)

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

Subject: Docket DMEA 4677 (Tungsten) Amalgamated Tungsten, Inc. (Copper King and Eagle Point Claims) Millard County, Utah

By our memorandum dated July 29, 1957, copy of which is enclosed, we sent to Washington the two reports of examination on the subject property. The third paragraph of the transmittal memorandum mentioned the fact that the Applicant had not submitted drilling bids to this office.

On page 7 of your part of the report of examination, the estimated cost per foot of AX coring is given at $7.50. Undoubtedly, you had justification for using this figure, but in order to keep the record straight, please instruct the Applicant to submit to this office a bid for the drilling proposed from each of three independent drilling contractors. This request was made in paragraph 3 of our March 28 memorandum, which forwarded the application to the field for examination and report of findings.

E. N. HARSHMAN

E. N. Harshman

Enclosure

MHM:eh

cc: Sec. Op. Comm. (2)
Harshman
Docket
Chron.

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DMEA
RECEIVED AUG 5 1957

DATE	INITIALS	CODE
8/5	P.K.	220
8/5	WSM	400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

July 29, 1957

ORIGINAL FILE COPY
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RECEIVED JUL 30 1957

DATE		CODE
7/31	C	220
		130
8/2	C	220
8/2	WSG	400
DMEA		

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA 4677 (Tungsten) Amalgamated Tungsten, Inc. (Copper King and Eagle Point Claims) Millard County, Utah - Two Reports of Examination

Enclosed are the original and two copies of a Report of Examination on the subject property by P. V. Fillo, USBM, and two copies of a Report of Examination on the subject property by Frank B. Moore, USGS.

The field examiners conclude that the probability for making a significant discovery is sufficiently promising to justify Government participation. Accordingly, they recommend that the Applicant's work proposal be approved, as modified by them, in which the Field Team concurs. / contract

We have no record in this office that the Applicant submitted drilling bids. We are requesting that bids be obtained and will forward copies to your office.

Also enclosed are eight extra copies of Figures 2 and 3 each for use in the preparation of the contract.

E. N. Harshman

E. N. Harshman
Acting Executive Officer

Reviewed by
DMEA OPERATING COMMITTEE
8-2-57
(date)

FOR UNITED STATES GOVERNMENT USE ONLY

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

TRANSMITTED
JUL 29 1957

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 4677

AMALGAMATED TUNGSTEN, INC.

Copper King and Eagle Point Claims

Millard County, Utah

CORE FILE COPY
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DATE
130
220

On Site EXAM.

Tungsten

Engineering Report

by

P. V. Fillo
Mining Engineer
Bureau of Mines

July 1957

Reviewed by
DMEA OPERATING COMMITTEE
7-2-57
(6030)

AMALGAMATED TUNGSTEN INC.
COPPER KING AND EAGLE POINT CLAIMS
MILLARD COUNTY, UTAH

CONTENTS

Engineering report	Page
Introduction	1
Location, topography, and climate	1
Ownership and extent	2
History and production	3
General Geology	4
Ore Deposits	5
Ore reserves	5
Proposed exploration	5
Conclusions and recommendations	8

ILLUSTRATIONS

Figure		Follows page
1	Location map, Amalgamated Tungsten, Inc., Millard County, Utah	See Geologic Report
2	Geological map and locations of drill holes	See Geologic Report
3	Claim map	8

DMEA 4677
Tungsten

AMALGAMATED TUNGSTEN, INC.
COPPER KING AND EAGLE POINT CLAIMS
MILLARD COUNTY, UTAH

INTRODUCTION

On February 27, 1957, Amalgamated Tungsten, Inc., Millard County, Utah, applied for a Government loan for a tungsten exploratory project estimated to cost $20,000. The applicant proposes to explore along the contact and the west side of the quartz monzonite dike, from pit No. 1 to pit No. 5 on Copper King No. 2 claim, as shown on figure 2.

On April 18, 1957, Frank B. Moore, Geological Survey, and P. V. Fillo, Bureau of Mines, examined this property to determine the merits of their proposed program; M. H. Howes of the Bureau of Mines accompanied the examining team with Mr. K. E. Farnsworth, president of Amalgamated Tungsten, Inc., to the property.

LOCATION, TOPOGRAPHY AND CLIMATE

The property is situated on the divide between Amassa Valley and White Valley on the north slope of Pine Peak in the House Range, approximately 55 miles west from Delta, Utah. The railroad shipping point at Delta, Utah is a branch line of the Union Pacific Railroad (fig. 1).

The property may be reached from Delta, Utah by driving 10 miles west on U. S. Highway 6; thence northwesterly 30 miles

on old U. S. Highway 6 (graveled); thence take the left fork of the road to Amassa Valley, approximately 10 miles (graveled); then continue westerly 2 miles through Amassa Valley to where the road forks, passing a log cabin along the way; then take the left fork 3 miles to the north slope of Pine Peak, where the applicant's claims are situated. The distance from Delta, Utah, to the property is approximately 55 miles. The inspection was made in a Government-owned jeep.

The property is located at an altitude of approximately 8,500 feet in an area of irregular relief. The climate is semiarid; summer days are hot and nights are cool. Rainfall is light and often comes in the form of cloudbursts. At times winter snowfall is heavy, making the property inaccessible.

Vegetation in the area includes pinon pine, juniper, sagebrush, and scrub oak. Water for the project can be hauled from one of the springs in the area.

OWNERSHIP AND EXTENT

The property consists of 12 unpatented lode-mining claims which are recorded at Fillmore, Utah, the county seat of Millard County.

Claim	Recording Date	Book	Page
√ Copper King	July 8, 1952	4	211
√ Copper King 1	Sept. 25, 1952	13	38
√ Copper King 2	July 8, 1952	4	211
Copper King 3	July 14, 1952	4	212
Copper King 4	July 14, 1952	4	213

(cont.)

Claim	Recording Date	Book	Page
Copper King 5	Aug. 13, 1955	13	27
✓Copper King 6	Oct. 7, 1955	14	117-A
✓Copper King 7	Oct. 7, 1955	14	118-A
Eagle Point 1	Oct. 25, 1955	14	415
Eagle Point 2	Oct. 25, 1955	14	415
Eagle Point 3	Oct. 25, 1955	14	416
Eagle Point Mill Claim	Dec. 10, 1955	15 NL	16

In examining the location of the applicant's claims, it was found that the applicant's sketch is inaccurate. The four discovery posts that were found are on Copper King claims Nos. 1, 2, 6 and 7, as shown in figure 3. The applicant's sketch is in error and it is recommended that only Copper King claim and Copper King claims Nos. 1, 2, 6 and 7 be subordinated under a proposed contract. These claims adequately cover the drilling area. Other claims are not geologically situated to be favorable for scheelite mineralization.

HISTORY AND PRODUCTION

The first 6 of the 12 claims were located in July, August, and September of 1952, and in September and December of 1955 the final 6 claims were located.

In the period from June 1, 1955, to November 30, 1955, the company spent approximately $25,000. From this amount $10,000 was spent on a Caterpillar tractor and truck; the balance was spent on road building and exploratory work. Their exploratory work consists of bulldozing

five small, open-pit workings. The production record is as follows: 150 tons were shipped to Combined Metals Reduction Co. at Bauer, Utah, and approximatley 75 tons were shipped to the Metcalf Mill 30 miles from the property. The shipments averaged .20 percent to .30 percent WO_3. According to the applicant, approximately 500 tons of tungsten ore is stockpiled on the property.

GENERAL GEOLOGY

The applicant's claims lie in the northern edge of the Notch Peak intrusive of the House Range. The Notch Peak intrusive is known as Tertiary quartz monzonite stock. The sedimentary beddings of limestone are intruded by quartz monzonite. The beds dip 15° to 20° southeasterly.

In adjoining areas the quartz monzonite dikes and sills have been observed in the sedimentary rock.

The tungsten deposits on the applicant's claims (Copper King Nos. 1, 2, and 7) occur at the contact of the limestone and the underlying quartz monzonite, and is known as a zone of tactite approximately 8 feet thick. A small amount of scheelite is disseminated in the bedding planes and tight fractures. The applicant excavated five small pits; three of these pits were sampled and results of analyses are as follows:

Sample	Location	WO3 percent
1	Grab sample, pit No. 1	0.29
2	Grab sample from stockpile, east side of big pit	0.35
3	18-inch chip sample of pit No. 5	0.74

(cont.)

Sample	Location	WO_3 percent
4	Grab sample from stockpile, west side of big pit	0.25.

From 0.2 to 0.3 percent grade appears to be general in the region.

It is believed it would require a large mining and milling operation for these low-grade deposits.

ORE DEPOSITS

The scheelite-bearing tactite deposit is a roof pendant (island of limestone) surrounded by quartz monzonite. The deposit lies in a triangular shape with 400-foot sides. All the limestone is affected by contact metamorphism and contains scheelite in varying amounts. It also occurs in garnetized limestone near the contact.

ORE RESERVES

An estimated ore reserve is difficult to make, since the property has not been sufficiently explored to evaluate the mineralized zone. The scheelite mineralization has an erratic appearance.

PROPOSED EXPLORATION

The $20,000 exploratory program proposed by the applicant includes road building, preparing the area around the portal of the adit, and driving an adit 590 feet to explore beneath the higher

grade scheelite. The adit was to start at the southeastern edge of the limestone and advance in a northerly direction toward pit No. 5.

In view of the limestone beds dipping southerly, and the portal of the adit being near the southern contact, it is believed that a considerable amount of the adit would be in the quartz monzonite.

It was suggested to the applicant during the examination that diamond drilling would be the best way to explore the deposit, and the applicant agreed. A drilling program would appear to be a more sound and logical method for exploring a deposit of this type. The gentle dip of the limestone beds indicates diamond drilling as a suitable means of exploration. Estimated maximum depth of drill holes is 100 feet.

To properly evaluate the property it is recommended that a 75-foot (approximate) grid pattern be used as shown on figure 2, and this work be adequately supervised by an engineer-geologist. A total of 22 holes with estimated depth of individual holes are as follows (see fig. 2 for hole locations):

Estimated Depth of Drill Holes

Hole No.	Estimated depth, feet	
	Fillo	Moore
1	60	30
2	95	35
3	125	60
4	50	25
5	90	35
6	130	70
7	40	20
8	78	45
9	115	65
10	40	20
11	70	40

(cont.)

Hole No.	Estimated depth, feet Fillo	Moore
12	85	65
13	50	35
14	60	50
15	20	25
16	25	35
17	180	95
18	170	100
19	130	100
20	120	100
21	80	90
22	40	70
Total	1,853	1,210

Time Schedule

Twelve hundred and ten feet of diamond-drill holes at 18 feet a day will require 67 days for completion. Contract 75 days.

Estimated Cost

Diamond drilling 1,210 feet of holes, AX core, at $7.50 a foot (including reaming and casing)	$ 9,075.00
Bulldozer work, 16 hours at $12.50 an hour	200.00
Water haulage	300.00
120 core boxes at $1.00 each	120.00
Supervision (engineer-geologist), $600.00 per month	1,500.00
Total	$11,195.00

Fixed Unit Cost

50 sample analyses, WO_3, at $4.00 a sample	$ 200.00
15 sample analyses Mo, at $3.00 a sample	45.00
Grand Total	$11,440.00
Government participation	$ 8,580.00

The applicant agreed to furnish his share of the estimated costs.

CONCLUSIONS AND RECOMMENDATIONS

The applicant's proposal for underground work on Copper King No. 2 claim does not have sufficient merit to justify the work.

The property could be a part of a large, possibly important, source of tungsten that would make a significant contribution to the national reserve, if mined and milled under a large, low-grade operation. It is believed that a modest drilling program is warranted. It is recommended that the work be supervised by an engineer-geologist and that all cores be split and one-half boxed and stored for DMEA disposal. All diamond-drill holes shall be drilled vertically downward through the scheelite-bearing tactite and about 3 feet into the underlying quartz monzonite. Drilling practices and equipment shall be such as to provide the maximum core recovery. Sludges shall be saved and kept separately for each coring interval in the scheelite-bearing tactite zone. It is suggested that a mineralight be used on all cores prior to determination analysis of WO_3.

It is recommended that Defense Minerals Exploration Administration enter into a contract agreement with the applicant to do the proposed diamond drilling at an estimated cost of $11,440.

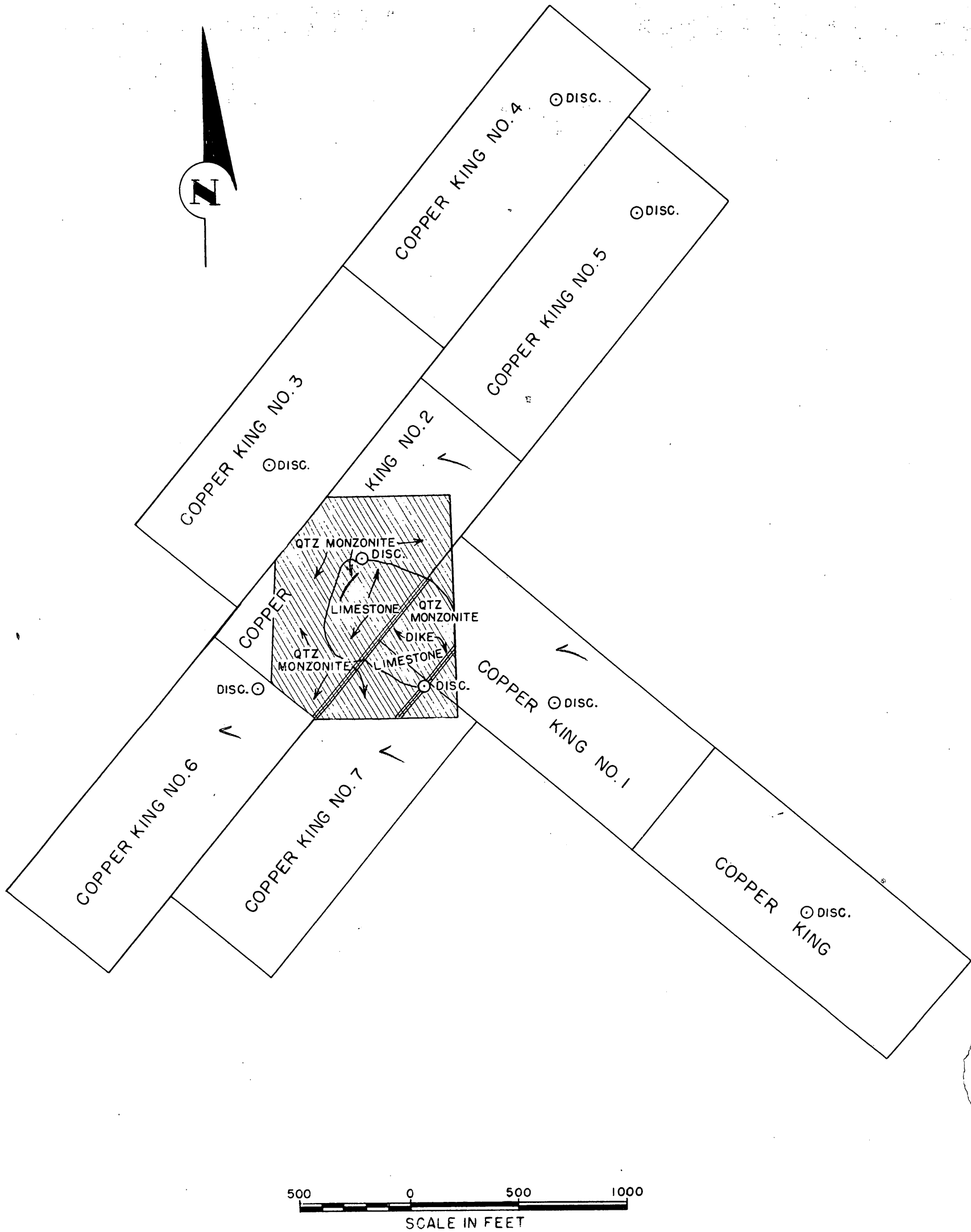


FIGURE 3 – CLAIM MAP, AMALGAMATED TUNGSTEN INC., MILLARD COUNTY, UTAH. DMEA 4677

OFFICIAL-COPY

[redacted]
DMEA
RECEIVED

DATE	INITIALS	CODE

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA
DEPARTMENT OF THE INTERIOR
JUL 5 1957
REGION III
DENVER, COLORADO

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

July 3, 1957

TRANSMITTED
JUL 29 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 4677 (Tungsten), Amalgamated Tungsten, Inc. (Copper King claims), Millard County, Utah

Enclosed are the original and seven copies of a geologic report by Frank B. Moore, U. S. Geological Survey, covering his examination of the subject property.

Low grade tungsten ore occurs in a tactite near the contact of Cambrian limestone and intrusive quartz monzonite.

The applicant proposed to explore the tactite by a program of drifting and crosscutting at an estimated total cost of $20,000.

Moore concludes that although the subject property may not contain large ore reserves, the reserves on the property together with reserves in adjacent properties may well be significant. He recommends a single stage program of core drilling comprising 1,210 feet of drilling in 22 holes.

I concur with the conclusions and recommendations.

Original signed by
E. N. HARSHMAN

OFFICIAL-COPY

E. N. Harshman
Member, Field Team

Enclosures (8)
ENHarshman:mp

Reviewed by
DMEA OPERATING COMMITTEE

(date)

FOR UNITED STATES GOVERNMENT USE ONLY

TRANSMITTED

JUL 29 1957

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

OFFICIAL COPY

DMEA 4677

Amalgamated Tungsten, Inc.

Copper King claims

Millard County, Utah

Tungsten

Geologic Report

by

Frank B. Moore, Geologist
Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE

(date)

July 1, 1957

CONTENTS

Page

Introduction..... 1

Geology..... 2

Proposed exploration..... 4

Conclusions and recommendations..... 6

ILLUSTRATIONS

Figure — Follows page

1. Index map of Utah showing location of the Copper King claims, Millard County, Utah. DMEA 4677..... 1

2. Geologic map showing locations of recommended drill holes, Copper King claims, Millard County, Utah. DMEA 4677..... 6

OFFICIAL COPY

DMEA 4677

AMALGAMATED TUNGSTEN, INC.
COPPER KING CLAIMS
MILLARD COUNTY, UTAH

INTRODUCTION

Amalgamated Tungsten, Inc., a Utah corporation with offices at 48 North 6th West, Salt Lake City, Utah, applied for a loan to explore for tungsten on the Copper King claims, Millard County, Utah. The property was examined on April 18, 1957, by Paul Fillo and M. H. Howes, U. S. Bureau of Mines, and F. B. Moore, U. S. Geological Survey. The examining team was shown the property by K. E. Farnsworth, president of Amalgamated Tungsten, Inc.

During the examination, the possibility of exploration by drilling rather than by drifting was discussed with Farnsworth who agreed to drilling if thought feasible by the examining team. However, because the applicant's map was so inadequate no drilling program could be planned until a suitable map became available late in May.

The Copper King claims (approximate elevation 8,000 feet) are on Pine Peak about 4 miles southwest of the Treasure Mountain Gravity Tungsten mill in Amassa Valley (fig. 1). Amassa Valley is reached by taking old U. S. Highway 6 for 39 miles westerly from Delta, thence turning left and continuing 9.6 miles on the Amassa Valley road. The

last several miles of road are not accessible to passenger cars except possibly during the summer months.

The property consists of 12 unpatented claims which were located in 1952 and 1955. Five cuts have been opened on the Copper King No. 1 claim and, according to the applicant, 255 tons of ore of 0.20 percent to 0.30 percent grade were shipped. The applicant estimates that 500 tons of ore have been stockpiled.

GEOLOGY

The Copper King claims are in the House Range at the northern or northwestern edge of a Tertiary quartz monzonite stock known as the Notch Peak intrusive. The quartz monzonite intrudes gently dipping beds of Cambrian limestone and shale. The 15° to 20° easterly or southeasterly dip of the beds is similar to other Basin and Range type structures in western Utah.

The tungsten deposits at the Copper King, as elsewhere in the House Range, occur in tactite beds at the contact of limestone with the intrusive. The monzonite has metamorphosed the limestone forming garnet-epidote layers for a distance of generally about 10 feet from the contact. The contact is largely conformable but local cross-cutting relationships are not uncommon. Tungsten in the form of scheelite favors the garnetiferous layers but also follows bedding planes and joints or tight fractures. A small amount of scheelite

is disseminated in all the beds in the contact zone. Generally one or two garnetiferous beds with an aggregate thickness of 3 to 8 feet may be considered the ore. Mostly the favorable beds are within 10 feet of the contact but ore has been found at other properties in the range at distances of several tens of feet. Where monzonite crosscuts the bedding, more than two beds may be garnetized, in which case the ore zone is locally thicker.

The Copper King deposit is in an outlier of limestone surrounded or nearly surrounded by monzonite (fig. 2). The outlier is roughly triangular in shape with a base of about 400 feet and a height of about 500 feet. A 5-foot thick sill of monzonite is exposed in the western part of the area. Five pits have been dug of which three were sampled. Results of analyses are as follows:

Sample	Type	Location	WO_3 (percent)
1	Grab	Pit No. 1	0.29
2	Grab	Pit No. 2	0.35
3	18" chip	Pit No. 5	0.74
4	Grab	Pit No. 2	0.25

Although higher grade pockets of 1 percent or more can be expected, the 0.2 to 0.4 percent grade appears to be general in the region. Further, although this deposit like others in the region almost certainly cannot be mined by itself at a profit, the aggregate

of all the deposits represents a significant amount of tungsten. Taken as a whole, all the deposits might justify a large low-grade operation which could be worked at a profit.

PROPOSED EXPLORATION

The applicant proposed to drive a tunnel about 590 feet long to explore beneath the higher grade showing (1 to 2 percent) in pit 5. The tunnel was to start at the southern edge of the limestone and trend northerly. Because the beds dip southerly and the portal would be near the southern contact, most of the tunnel would probably be in monzonite which is not a favorable host rock. Total cost of the tunnel was estimated at $20,000.

During the examination, it was suggested to the applicant that perhaps drilling would be the best way to explore. The applicant agreed to a drilling program if deemed feasible by the examining team. The property is adaptable to drilling. The beds are gently dipping and the deepest hole should be in the range of 100 feet. Because of the small size of limestone outcrop a 75-foot grid has been used as shown on figure 2. To properly evaluate the property, 22 holes totalling 1,210 feet will be needed. The holes should be AX size, drilled vertically, and penetrate into the monzonite a distance not to exceed 5 feet except in the area of the sill. In this area a 10-foot penetration into monzonite should be allowed

to pass through the sill. If limestone or tactite is re-encountered, the hole should continue to the basement monzonite. The estimated depth of individual holes are given in the following tabulation: (See figure 2 for locations)

Estimated depth of drill holes

Hole No.	Estimated depth (feet)
1	30
2	35
3	60
4	25
5	35
6	70
7	20
8	45
9	65
10	20
11	40
12	65
13	35
14	50
15	25
16	35
17	95
18	100
19	100
20	100
21	90
22	70
	1,210

The core from all holes should be examined under a black lamp and mineralized portions split and assayed for tungsten. Individual assays should represent not more than a 5-foot interval of core. It is estimated that 50 assays will be required.

CONCLUSIONS AND RECOMMENDATIONS

At the Copper King claims and in nearby areas, scheelite is disseminated in tactite beds where Cambrian limestone has been metamorphosed at the contact with a Tertiary monzonite intrusive. Although it is doubtful if the Copper King or any other individual property can be considered economic, there appears to be enough tungsten in the region to make a significant contribution to the national reserve if mined and milled under a large, low-grade operation.

Because the property is part of a large, possibly important source of tungsten it is believed that a modest drilling program is warranted. It is therefore recommended that the application as modified under the proposed exploration section be approved.

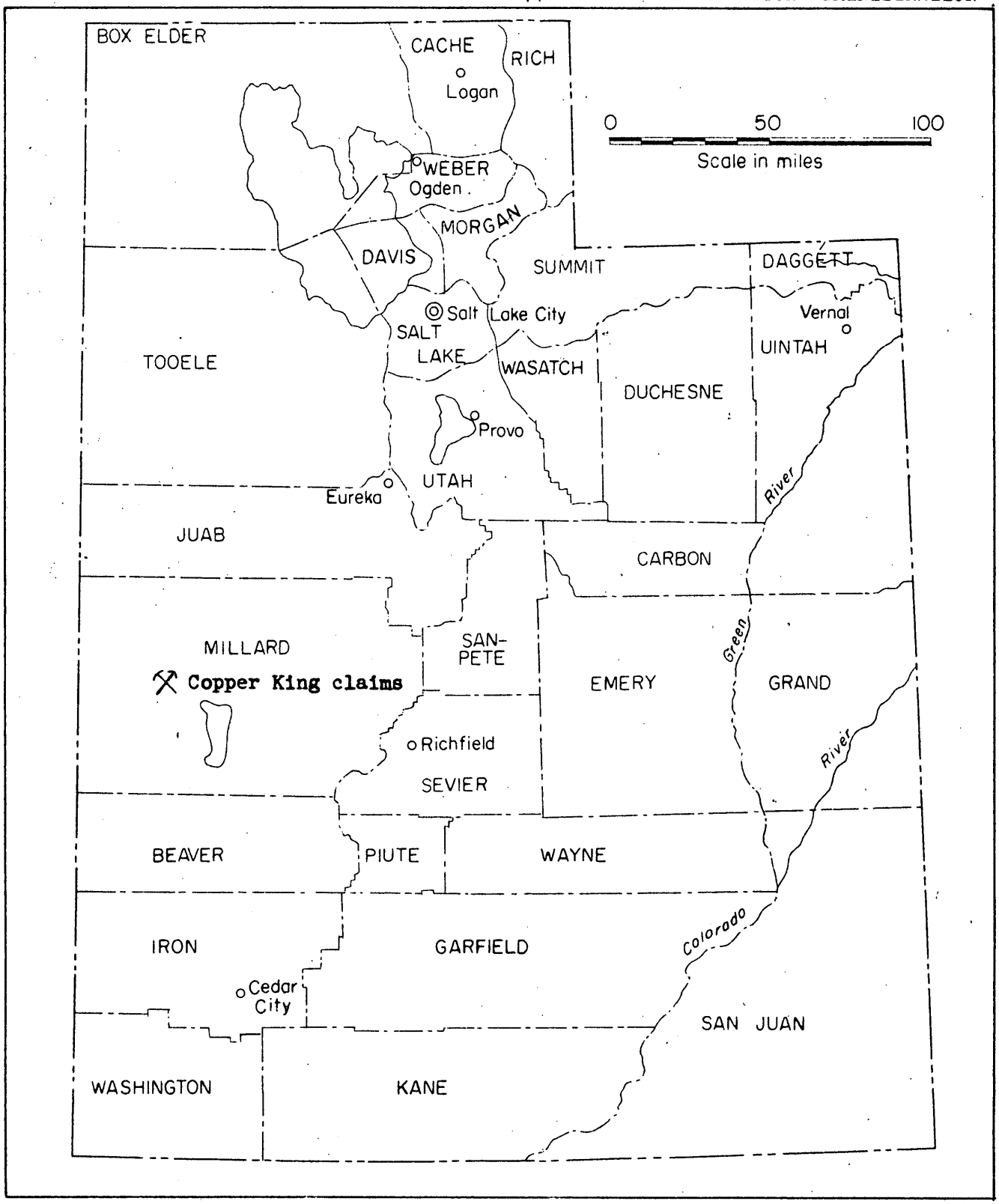


FIGURE 1—INDEX MAP OF UTAH **SHOWING LOCATION OF COPPER KING CLAIMS, MILLARD COUNTY, UTAH**

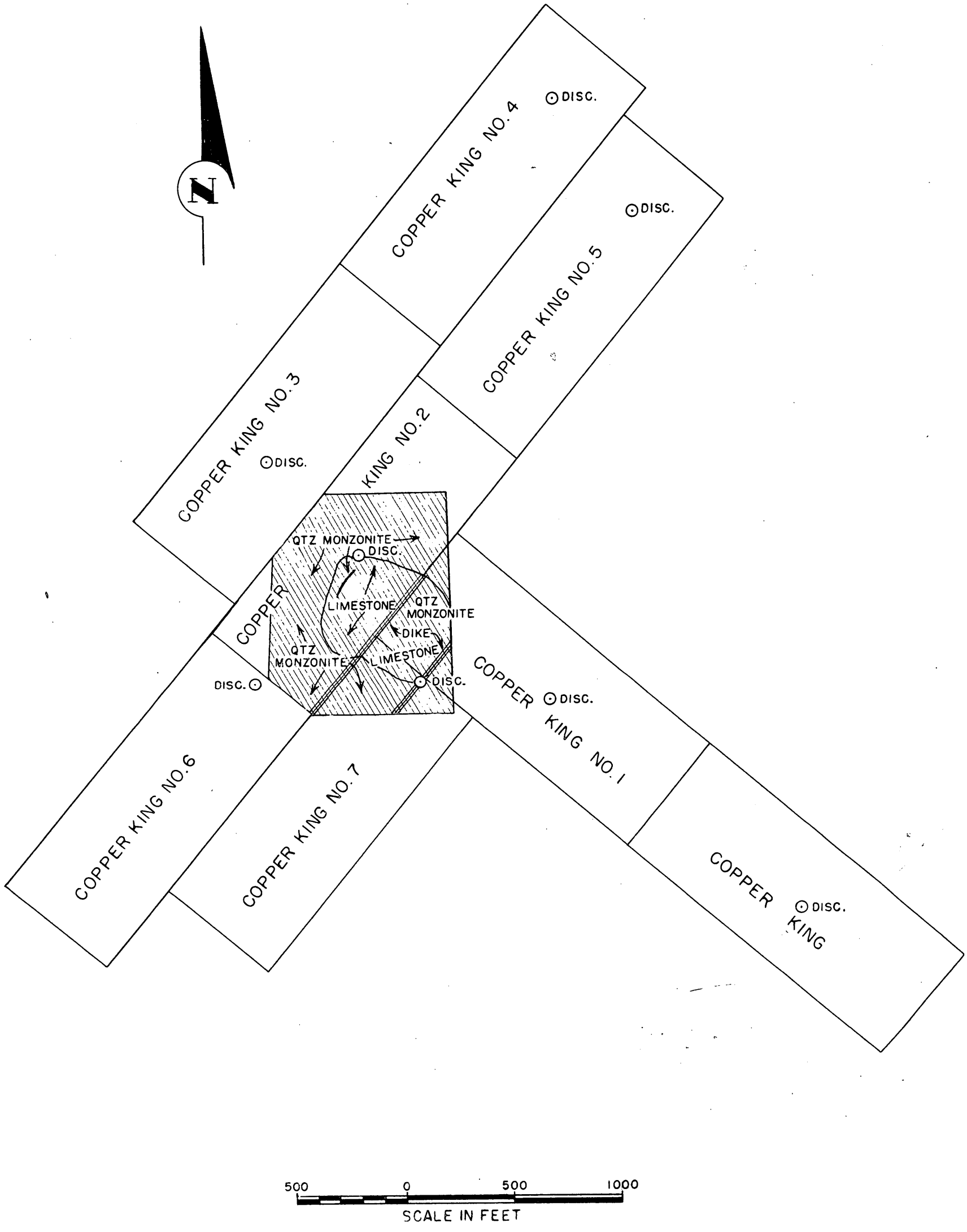
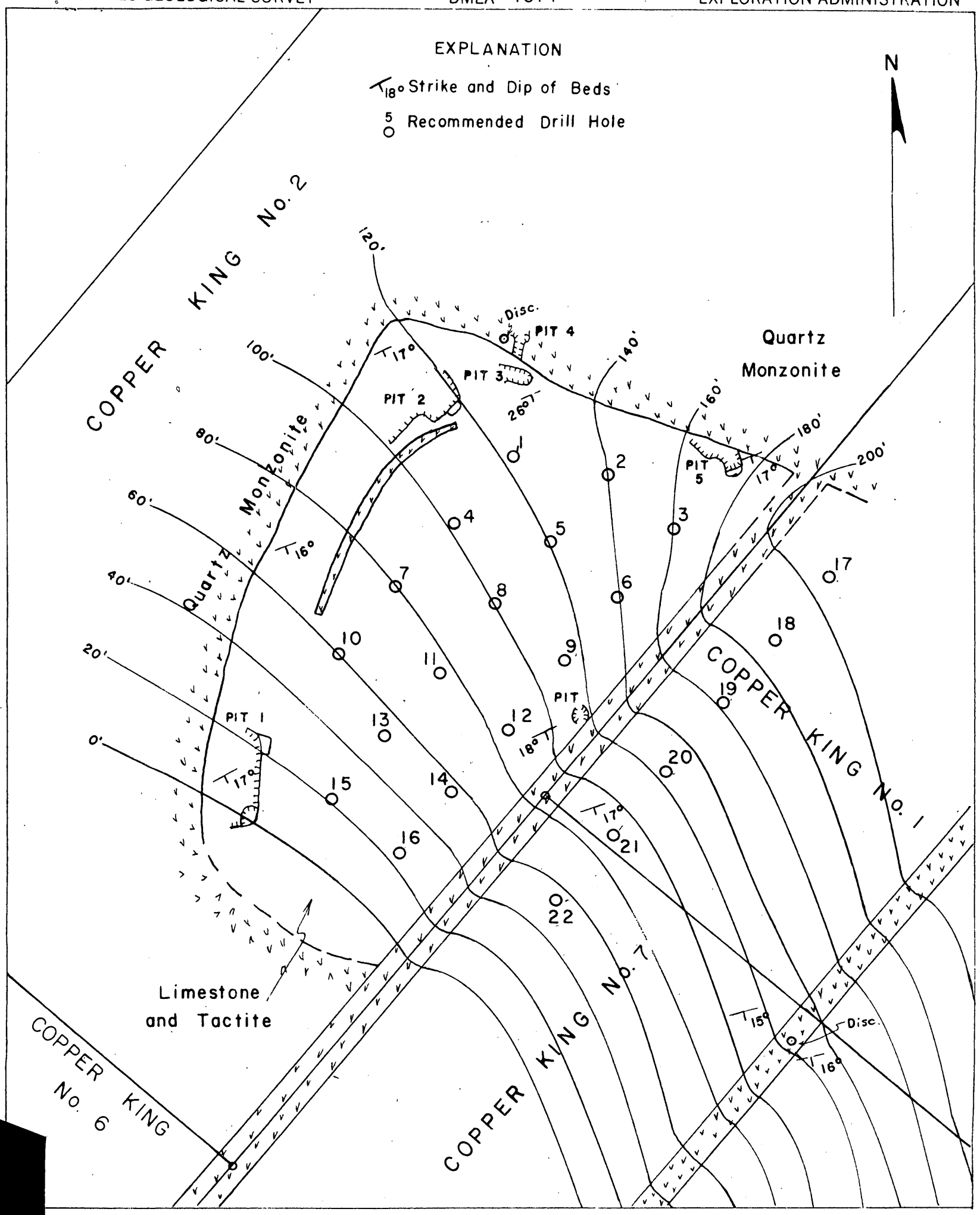


FIGURE 2 – CLAIM MAP, AMALGAMATED TUNGSTEN INC., MILLARD COUNTY, UTAH. DMEA 4677

EXTRA COPY
D M E A
RECEIVED JUL 31 1957

DATE	INITIALS	CODE



FROM MAP BY M.H.HOWES, MAY, 1957

FIGURE 2 - GEOLOGIC MAP SHOWING LOCATIONS OF RECOMMENDED DRILL HOLES, COPPER KING CLAIMS, MILLARD COUNTY, UTAH

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DATE	INITIALS	CODE

DMEA
DEPARTMENT OF THE INTERIOR

APR 1 - 1957
REGION III
DENVER, COLORADO

March 29, 1957

Memorandum

To: S. R. Wilson

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4677 (Tungsten) Amalgamated Tungsten, Inc. (Copper King and Eagle Point Claims) Millard County, Utah

Enclosed please find the application for Amalgamated Tungsten, Inc., Docket DMEA 4677, in the amount of $20,000.00 which was received in this office on March 29, 1957.

A field examination and suitable report are required. The completed report should be forwarded directly to the Executive Officer with a copy of the memorandum of transmittal to this office.

W. H. King

Enclosure

cc: Executive Officer (3)
E. W. Marshman (2)
J. B. Clemmer

OFFICIAL FILE COPY
DMEA
RECEIVED 1957
DATE CODE
4-4 C 220
4/4 WSM 400

WO (2)

	INITIALS	CODE
4/2	C	200
4/2	WSM	400

224 New Customhouse
Denver 2, Colorado

March 28, 1957

Memorandum

To: W. H. King)
E. N. Harshman) W/enclosures, Items 1-5 Below

From: DMEA Field Team, Region III

Subject: Docket DMEA-4677 (Tungsten) Amalgamated Tungsten, Inc. (Copper King and Eagle Point Claims) Millard County, Utah

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 R. W. Holliday, USBM.
3. Memorandum of Review by N. E. Nelson, USGS.
4. Letter of transmittal of the foregoing to this office, dated March 25, 1957, from the Chairman, Operating Committee, DMEA.
5. Routing control sheet.

A field examination and joint report of findings and recommendations are requested.

If the field examiners view the work proposal favorably, the applicant should be instructed to submit to this office a bid for the drilling recommended from each of three independent drilling contractors.

Twelve 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 be returned to this office with the joint report of examination. Mr. Harshman will return the Survey's copy of the application to Washington, D. C.

By E. N. Harshman
Acting Executive Officer

Enclosures

MHM:eh

cc: Sec. Op. Comm. (2)
Harshman
King
Docket
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/22	Chapman	400
3/22	Martin	400
3/22	Selfridge	130
"	[illegible]	110
"	Hutchendorf	100
3/25	C	220
		400

MAR 25 1957

Mr. B. H. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Custom House
Denver 2, Colorado

Re: Docket No. DMEA 4677 - Tungsten
Amalgamated Tungsten, Inc.
Copper King and Eagle Point claims
Millard County, Utah

Dear Mr. Harshman:

The above docketed application for exploration assistance is being referred to your office for review and a field examination of the property if necessary.

Copies of memoranda dated March 15, 1957, by W. E. Nelson, Geological Survey and R. W. Holliday, Bureau of Mines, relating to the project are enclosed. Also enclosed are two extra copies of the application and three copies of reports from three engineers for the use of the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

Frank D. Lamb

Member, Bureau of Mines

Trnor H. Kiilsgaard

Member, Geological Survey

TLChapman:am 3/22/57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG III
Messrs. ~~XXXXXXXXXXXXXXXX~~
T. H. Kiilsgaard, USGS
R. W. Holliday, USBM

Enclosure

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/22	Chapman	400
3/22	Martin	400
3/22	Selfridge	130
"	Johnson	110
"	Mittendorf	100
		220

MAR 25 1957

Amalgamated Tungsten, Inc.
48 North 6th West
Salt Lake City, Utah

Re: Docket No. DMEA 4677 - Tungsten
Copper King and Eagle Point claims
Millard County, Utah

Lamb
Kilsgaard

Gentlemen:

The above docketed application for exploration assistance for tungsten ores has been reviewed by the Iron and Ferro-Alloys Division, of the Defense Minerals Exploration Administration, and referred to Mr. E. N. Harshman, Acting Executive Officer, DMEA Field Team, Region III, 224 New Custom House, Denver 2, Colorado, for review and a possible field examination of the property.

Any assistance you can give the members of the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

TLChapman:am 3/22/57
cc to: Docket
" Code 400
Admr. Read. File
Oper. Comm.
FT REG III
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 18 1957

DATE	INITIALS	CODE
3/18	C	220
3/18	WSM	400

March 15, 1957

DMEA Docket No. 4677
FMA Contract No.
Commodity Tungsten
Name of applicant Amalgamated Tungsten, Inc.
Name of property Copper King and Eagle Point
Location of property Millard County, Utah
Estimated cost of project $20,000.00

W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA HMR
Through: Chief, Br. of Ferrous Metals & Ferroalloys

R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals & Ferroalloys

Application
(Check one: Field Team Report, etc.)

Date received 3/11/57 Date to be received by Field 3/15/57

Is a geologist's report to review: Yes [ ] No [X]

Is a mining engineer's report to review: Yes [ ] No [X]

Is a field team on post production: Yes [ ] No [X]

Is a mining engineer's report to review: Yes [ ] No [X]

Reason for mining plan above:

Is this application ready for consideration:

a. Yes [ ]
b. No [ ]
c. Yes, but not ready for action [ ]
d. Other [ ]

a. Proposed exploration method [X]
b. Alternate exploration method [ ]
c. Costs [ ]
d. [ ]

Is the field team recommendation from applicant [ ]
Is the field team recommendation [X]
Is the recommendation of Field Team [ ]
Is the recommendation of Field Team [ ]

e. Disagree with field team [ ]
f. Suggest alternate plan [ ]
g. Request another consideration [ ]
h. Approval [ ]

Comments (Use back of page if necessary) Field Team recommendation should be obtained.

R. W. Holliday

R. W. Holliday

IN REPLY REFER TO:

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

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 18 1957

DATE	INITIALS	CODE
3/18	C	220
3/19	WSM	400

March 15, 1957

Re: DMEA 4677
Amalgamated Tungsten Inc.,
Copper King and Eagle Point
Claims
Millard Co., Utah
$20,000.00 - Tungsten

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of application.

The applicant requests assistance in exploring a tungsten-bearing zone, from which about 255 tons of low grade tungsten ore was shipped in 1955.

The sketch maps are not too clear but it seems the ore occurs along a granite dike which cuts limestone - probably in a tactite zone. Several cuts show the low grade ore, and one cut shows from 1 to 2% WO_3 material

An examination is indicated and so recommended.

N. E. Nelson

N. E. Nelson

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

March 13, 1957

Amalgamated Tungsten, Inc.
48 North 6th West
Salt Lake City, Utah

Subject: DMEA-4677

Gentlemen:

Your application for exploration assistance, dated February 27, 1957 submitted to our office at Denver, Colorado has been assigned Docket Number DMEA-4677 and referred to the Iron & Ferro Alloys Division 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

6416