W.H.K.

400

AUG 7 1953

Mining Division
Date Rec'd.
AUG 10 1953
BUREAU OF MINES
Denver, Colorado

Mr. W. P. Birchfield
Box 1001
Deming, New Mexico

Re: Docket No. DMEA 3055 - Manganese
One Standard Mining Claim
S½ of SW¼, Sec. 32, T25S, R7W
Luna County, New Mexico
Lease M-3107 from New Mexico

Dear Mr. Birchfield:

Your application for aid for an exploration project and other data available to us in Washington concerning the above 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 small lenses of manganese ore on the above noted claim, indicates to us that the probability of disclosing minable ore reserves of manganese by your proposed program 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 Program and for bringing your lease to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

TLChapman/foc
8-3-53
cc: Docket
Code 400
FT. Reg. 4
Adm. Reading File
Oper. Committee
N. B. Melcher, USBM
Martha Carr, USGS

Mining Division
Region IV

July 21, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 3055 (Manganese), W. P. Birchfield, Luna County, New Mexico.

Enclosed are nine copies of the final engineering report on the subject docket.

The applicant requested $56,515.00 to be used largely for equipment and development work.

The examiner believes that further exploration is not warranted and he recommends that the application be denied.

We concur in this recommendation.

W. H. King
W. H. King

Enclosures

HMC:cwm

cc: Subject
AHKoschmann (2)
Chron.

[illegible] New Customhouse
Denver 2, Colorado

July 21, 1953.

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 3055 (Manganese), W. F. Kirchfield, Lucas County, New Mexico.

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

Three copies of the subject application were forwarded to this office together with a copy of a letter to the applicant signed by Robert E. Adams, dated June 3, 1953.

The applicant's estimated cost was $56,515.00, Government participation $42,386.25. No comments have been received from the community group.

The examining engineer recommends that the application be denied and we concur in this recommendation.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

WHK.

Enclosures

HMC:cwm

cc: WRStorms w/copy of Final Report
RFRobinson w/copy of Final Report
AHKoschmann w/copy of Final Report
DMEA w/copy of Final Report
Mining Division w/copy of Final Report
Subject
AHKoschmann (2)
Chron.

June 3, 1953

Mr. W. P. Birchfield
Box 1001
Deming, New Mexico

Subject: DMEA-3055
Re: Exploration Assistance

My dear Mr. Birchfield:

The receipt of your application dated May 25, 1953 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3055 and referred to Mr. W. H. King, Executive Officer, Region IV, Bureau of Mines, 224 Customhouse Bldg., Denver 2, Colorado.

Kindly refer to DMEA-3055 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Chief, Operations Control
and Statistics Division

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 2 1953

Deming, N.M.
Box 1001
June 1, 1953

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

Dear Sir:

Enclosed find information for aid in mining project. Application etc. If you need any more details please let me know so that the loan will go through quick as possible.

I have invested lots of money and a life time in these mines and would really like to get to going.

Yours truly,

W. P. Birchfield Jr.

STATE OF NEW MEXICO

LUNA COUNTY

CHAS F. MCGRAW, PROBATE JUDGE
C. R. HUGHES, COUNTY CLERK
CLAUDE S. IRWIN, SHERIFF
EURA L. WILKERSON, ASSESSOR
WARREN MCCAN, TREASURER

W. D. BERRY, SUPT. SCHOOLS
C. B. MORGAN, SURVEYOR
LEWIS SMYER, COMMISSIONER, 1ST. DIST.
GEORGE R. MEASDAY, COMMISSIONER, 2ND. DIST.
STANLEY DENNIS, COMMISSIONER, 3RD. DIST.

DEMING, NEW MEXICO

May 29, 1953

State of New Mexico)
) ss.
County of Luna)

I, C. R. Hughes, hereby certify that I am the duly elected, qualified and acting County Clerk of Luna County, New Mexico, and the legal custodian of the records thereof.

I further certify that Manganese and Manganese #1 to #11 Mining Claims were located by W. P. Birchfield, et al on May 29, 1931, Claims recorded in Book 5 of Mining Locations, pages 544 to 550 inclusive. The description of location of these mines shows Sections 5, 6, 31 and 32, Townships 25 and 26 South, Range 7 West, on the East side of the Big Florida Mountains.

I further certify that the records of this office show that assessment work was recorded for 1953.

IN WITNESS WHEREOF I have hereunto set my hand and official seal this 21 day of May, 1953.

C R Hughes
County Clerk

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

Defense Minerals Administration
JUN 2 1953

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

Not to be filled in by applicant

Docket No. DMEA-3055
Metal or Mineral
Date Received 6/2/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: W. P. Birchfield, Jr., Box 1001, Deming, New Mexico

(*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 One standard mining claim 600 ft. by 1500 ft. lying in the SE¼ of Section 32, T-25S., R-7W, Luna County, State of New Mexico.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise lessee from State of New Mexico, lease K-3107, August 30, 1951

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

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

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

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. attached Physical Description

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

(*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 Manganese

(*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. see sketch enclosed

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☒ Use of equipment owned by you ☒ Other labor

Explain in detail on acompanying paper. Attached

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 May 25, 1953

W. P. Birchfield Jr.
(Applicant)

By

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

Assay of ore from Deming Purchase Depot

12-14-51	B-1	18.50	36.35%Mn	$ 980.50
1- 9-52	B-2	14.19	32.13	571.86
1- 9-52	B-3	11.01	16.65	100.74
2-18-52	B-4	12.46	18.8	152.01
2-21-52	B-5	5.60	17.55	59.64
2-26-52	B-6	5.31	35.3	257.39
4-12-52	B-7	7.20	23.85	147.96
4-12-52	B-8	8.06	25.25	179.34
4-22-52	B-9	6.31	20.8	97.17
6-11-52	B-11	6.73	17.95	71.67
10-27-52	B-12	7.15	30.6	319.82

(Signed) T. A. Mitchell
Metallurgist.

DMEA-3055

DMEA-3055

Application # M-3107 Lease # M-3107

MINING LEASE

Aug 30, 1951

LESSOR . P. Birchfield, Jr. Box 1001 Deming, New Mex.

Annual rental $ 25.00 Paid in advance.

Payable annually in advance

For removal of MANGANESE .

MANGANESE

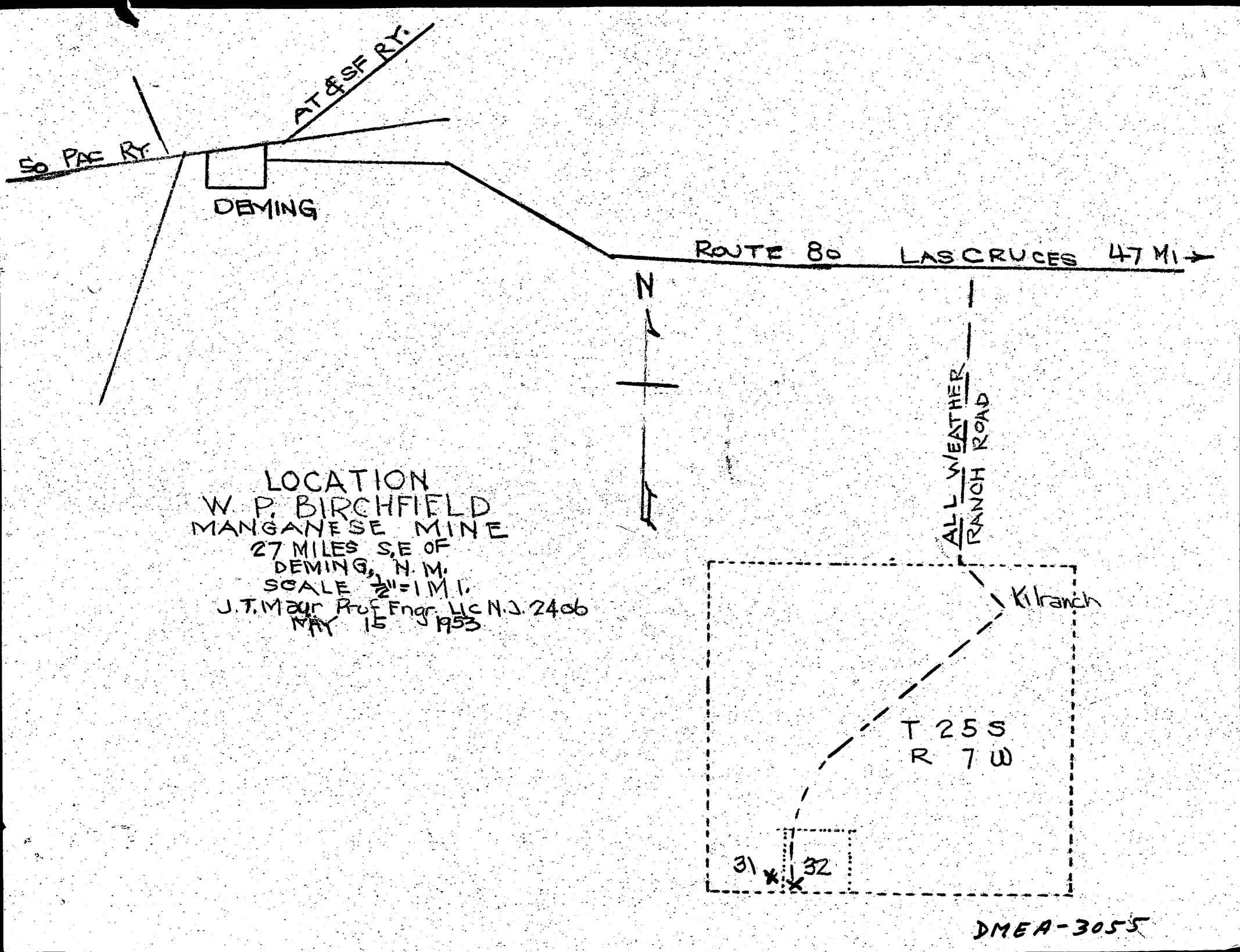
Commencing at the SW corner of Section 32, T-25 S, R-7W which is also the SW corner of this claim and true place of beginning. Thence N along the W boundary of said Section 32 600 feet to the NW corner of the claim, thence E 1500 feet to the NE corner, thence S 600 feet to the SE corner, thence W along the S boundary line of said Section 32 1500 feet to the SW cornerwhich is also the SW corner of this claim and true place of beginning.

Containing one standard mining claim lying in the S½SW¼ of Section 32, T25S, R-7W.

Above is a true copy of lease made on standard form of mining lease for State of New Mexico

Certified correct

SIGNATURE W. P. Birchfield Jr


AT & SF RY.
So PAC RY.
DEMING
ROUTE 80
LAS CRUCES 47 MI →
N
ALL WEATHER RANCH ROAD
Kilranch
T 25 S
R 7 W
31
32
LOCATION
W. P. BIRCHFIELD
MANGANESE MINE
27 MILES S.E OF
DEMING, N. M.
SCALE ½" = 1 MI.
J. T. Maur Prof Engr. Lic N.J. 2406
MAY 15 1953

DMEA-3055

SECTION A-A' 1" = 50'
30-35 % MAX.
SECTION B-B 1" = 50'
TUNNEL
18 %
11 MAX
ELEV. 4100±
58-32 % MAX.
PLAN VIEW SCALE 1" = 400'
A
A'
B
B'
400'
1200'
1135
WANDAMERE
ROAD
TO 222 KM
WANDAMERE SECONDARY
DETACHED
MINE
X X 6 BIRCH
T.L. WAM 1-
USA 12-1223
PROP. ENER. PROP. LICN. SAPC
DMEA-3055

X-704 R 5M 3-53
PRINTED IN U.S.A.

INGERSOLL-RAND COMPANY

EL PASO, TEXAS

DUPLICATE COPY
TO BE SENT TO _____

May 27th, 1953

Birchfield Manganese Mines
P. O. Box No. 1001
Deming, New Mexico.

Attn: Mr. W. P. Birchfield

Gentlemen :

In accordance with our discussion after visiting the various workings in your manganese mines yesterday we are pleased to attach quotations on equipment which it was decided would be required on each of these two properties.

As previously advised we contacted Mr. Frank Shidmore of Contractors Equipment and Supply Company, Albuquerque, N.M. who are our dealers, and they are agreeable to furnishing equipment with a 25 % down payment and six percent (6%) handling charge for the balance over a ten month period. This of course, would not apply to consumable items such as hose, steel, bits, cable etc., for which you would have to pay cash.

For your convenience we have made a separate list of equipment for each property, both on our equipment and that on which the writer obtained prices for you from other sources which are given in the tabulations.

Delivery on our equipment can be made at this time from Albuquerque and El Paso stocks, subject of course to prior sale. Literature on the equipment we are offerring has already been delivered to you so we will not include additional copies at this time.

We trust that our interpetation of your requirements will be found satisfactory and assure you your consideration of our equipment is very much appreciated. Please do not hesitate to let us know if we can be of further service.

Yours very truly,

Ingersoll Rand Company

F. L. Woods
HS
Enclosure

X-964 R 5M 3-53
PRINTED IN U.S.A.

INGERSOLL-RAND COMPANY

EL PASO, TEXAS

DUPLICATE COPY
TO BE SENT TO _____

Equipment required for Birchfield Mine
No. 2 Open Pit " Manganese"

One	(1)	GR 210 Gyro Flo Portable Air Compressor on four pneumatic tires Price F. O. B. Albuquerque, N. M.		6315.00
One	(1)	ER 38 Jackdrill with 7/8" Hex X 4 1/4 Chuck Price		635.00
one	(1)	J 40 Wet Jackhamer with 7/8" Hex X 4 1/4" Chuck Price		380.00
Three	(3)	50 Ft. Lengths 3/4" Air Hose with Couplings Price Each	30.05	90.15
Three	(3)	50 Ft. Lengths 1/2" Water Hose with Couplings Price Each	26.25	78.75
Two	(2)	10 Ft. Lengths 3/4" Air Hose with couplings for tank Price Each	11.95	23.90
Two	(2)	Type "F" Air Line Lubricators complete with 12 1/2 FT Air Hose and Couplings Price Each	33.00	66.00
Two	(2)	15 Gallon Water Tanks Price Each.....	61.00	122.00
Twelve	(12)	Sets CL 113 A 7/8" Hex X 4 1/4 shank Jackhamer and Jackdrill steel Lengths 2' 4' and 6' Price Each	25.00	300.00
Twenty Five	(25)	113 XCS 4 Corset Jackbits Price Each	11.05	276.25
		Total		8207.05

All above items except portable are freight allowed to Deming, N. M.

Equipment for No. 2 Open Pit other than Ingersoll Rand on which prices were obtained as follows :

Mine and Shelter Supply Company, El Paso, Texas Telephone 2-5431

One	(1)	1500 Watt, 115 Volt, 1 Phase, 60 Cycle , 2 Wire Manually Controlled Light Plant Price F. O. B. Minneapolis, Minn.....	525.00

continued on page two

X-694 R 5M 3-53
PRINTED IN U. S. A.

INGERSOLL-RAND COMPANY

EL PASO, TEXAS

DUPLICATE COPY
TO BE SENT TO _____

continued from page one

Contractor Equipment and Supply Company, Albuquerque, N. M.

One	(1)	Minneapolis Moline Model RTI Tractor with Front end loader and bucket 1/2 yard Capacity (for surface loading) Price F. O. B. Albuquerque, N. M.	$3955.00
		Total	$4480.0

4. PHYSICAL DESCRIPTION

An open cut from haulage road leading into face of workings, has been made both as exploration and to provide ready access by trucks direct to working face. In the accompanying sketch is shown position of workings on claim and cross-section at point of ore removal. The working face has exposed a very fine vein with many branches which indicate the presence of a huge deposit ranging from a minimum of 1000000 long tons to a potential fe 5000000 long tons recoverable ore.

Applicants interest is from owners-lessee standpoint with a view to ~~production~~ exploration of strategic minerals for a profit.

Mine is readily accessible for examination and all weather haulage by automotive vehicles . Sketch map inclosed shows haulage of 27 miles over maintained road . 13 miles paved highway, balance graded road bed.

# # # #

(b) In opening up the existing face over 150 long tons of 28% average manganese ore, was removed along with over 500 tons of dump waste for the access ramp for truck haulage direct from working face.

On the basis of 40% deductable for quantity contingency, and 10% deductable for downgrading of ore vein, a minimum of 1000000 long tons of 28% grade ore is in sight , with a potential increase of 5000000 long tons and betterment of ore grade to as high as 45% with expected average of 38%.

(c) Removal could be facilitated by open cut process of excavation due to favorable contours with relation to existing and future haulage roads. Gradients would be of gradual nature and curvature to allow high efficiency of large hole bench drill production and short haul removal to transportation units for direct transportation to stockpiling Purchase Depot at Deming, N. M. Proper exploration will remove all hazards of loss for big scale production, by indicating safer margin of grade and quantity of ore, at the same time expediting its immediate preparation for removal.

(d) Location pland and road map inclosed. Deming, N. M. is good source of labor and materials with El Paso, Tex., Albuquerque, N. M., Phoenix, Ariz., all within short range haulage for more special articles of supply and equipment. Applicant resides within 10 miles of mine and already has established camp and shop facilities at the workings.

(e) R. E. A. Electric power lines have been contracted for, and lines are now within 5 miles or less of mine. Reliable supply of good water within ½ mile of mine.

OPERATING EXPERIENCE AND BACKGROUND

Owner & Operator W. P. Birchfield, Jr.

50 Years of age. Born near site of mine. 30 years experience, solely in manganese mines of various types. Has followed operating and kept up with all current mining practice. Hadadvice and benefit of consultation with leading mining engineers and geologists . The area involved has been in control of applicants family for three generations and the benefit of valuable traditional information plus experience with modern methods and access to reliable advice make for excellent qualifications.

An open cut from Hanley road leading into face of workings, has been made with a reclamation one to provide ready access by trucks direct to working face. In the accompanying sketch is shown position of workings on plans and cross-section at point of ore removal. The working face has exposed a very fine vein, the many branches indicate the presence of a large deposit ranging from a minimum of 100,000 long tons to a potential 500,000 long tons recoverable ore.

Adjacent interest is from owners-lessee standing with a view to exploitation of strata in adjacent for a profit.

Exploitation

Line is readily accessible for examination and all weather haulage by automotive vehicles. Sketch map indicated above haulage of 27 miles over maintained road, 12 miles paved highway, balance graded road.

(b) In opening up the existing face over 100 long tons of 30% average manganese ore, was removed along with over 300 tons of dump waste for the access and for truck haulage direct from working face.

On the basis of 10% deductible for normally sorting out, and 10% deductible for downgrading of ore vein, a minimum of 100,000 long tons of 30% grade ore is in sight, with a potential tonnage of 300,000 long tons and betterment of ore grade to as high as 45% with expected average of 38%.

(c) Removal could be facilitated by open cut process of excavation due to favorable contours with relation to existing and future haulage roads. Quantity would be of gradual nature and anywhere to allow high efficiency of large hole bench drill production and short haul removal to transportation units for direct transportation to stock-piling warehouse based on bedding, i.e., Upper exploitation will remove all tonnage of ore for high grade production, by initiating sorter work in of grade and quantity of ore, at the same time exploiting the adjacent tonnage for removal.

(d) Location of mining and transportation facilities, Hanley, N.M., is good source of labor and material is within El Paso, Tex., Albuquerque, N.M., Phoenix, Ariz., all within short range haulage for more special artifacts of supply and equipment. Adjacent rail is within 12 miles of mine and already has established a spur and also facilities at the workings.

(e) N.M. & Pacific Power Lines have been contracted for, and lines are now within 3 miles on left of mine. Reliable supply of good water within 1 mile of site.

PROJECT--BIRCHFIELD MANGANESE
LOCATION SEC. 32 T-- 25 S.--R 7 W.

OWNER W. P. BIRCHFIELD JR.
ESTIMATED BY J. T. MAYR CHECKED BY F. W. & P. B. May 15, 1953

CLASS OF WORK	LABOR MONTH	EXPENDABLE MONTH	TOTAL
Ingersoll Rand Compressor			8,287.00
Drills & Drill Supplies			
Light Plant & Loader			4,480.00
Tools, Tanks & assory equipment			500.00
Mine labor facilities & Repairs			800.00
Buildings, Ramps, Ladders Timbers & Chutes			1,000.00
Plant sub total			15,067.00
Labor 6 men @ $48.00 week	1,152.00		
Foreman 1 @ $72.00 "	288.00		
Machinest @ $60.00 "	240.00		
Bookeeper @ $48.00 "	192.00		
12 months			22,464.00
Consultant & Surveys	50.00		
12 months @ $50.00			600.00
Compensation Insurance & tax		100.00	
12 months			1,200.00
Total			39,331.00
OWNERS SHARE			
2 Dump Trucks & Drivers each	4,992.00		
12 months			9,984.00
Supertendant of works @	600.00		
12 months			7,200.00
Total			56,515.00
Estimated reciepts from ore sales 200 ton per month @ $25.00 per ton for 12 months			60,000.00
Balance			3,485.00

Mining Division
Date Rec'd
JUN 19 1953
BUREAU OF MINES
Denver, Colorado

MINING DIVISION
REGION IV

June 17, 1953

Mr. W. P. Birchfield, Jr.
Box 1001
Deming, N. Mex.

Re: Docket DMEA-3055
Birchfield Manganese Lease,
Luna County, N. Mex.

My dear Mr. Birchfield:

In regard to your application to the Defense Minerals Exploration Administration for a loan to explore your leased manganese property in Luna County, New Mexico, one of our mining engineers, Mr. John H. Soule', examined your mine yesterday. He was unable to locate you either in Deming or at your ranch but visited the mine accompanied by your watchman.

We are very sorry that we were unable to let you know in advance that our engineer was coming but as the present Defense Production Act expires on June 30, we wanted to examine your property as soon as possible and thought we could find you either in Deming or at your ranch.

Sincerely yours,

Walter R. Storms, Chief
Mining Methods Branch
Mining Division, Region IV

CC W. H. King
DMEA-3055
DF

WRStorms:frj

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 360
Grand Junction, Colorado

June 12, 1953

Mining Division
Date Rec'd
JUN 15 1953
BUREAU OF MINES
Denver, Colorado

Mr. Raymond F. Robinson
U. S. Geological Survey
P. O. Box 4126
University Station
Tucson 5, Arizona

Dear Ray:

Enclosed is Docket No. DMEA 3055 (Manganese), W. P. Birchfield, Jr., Luna County, New Mexico.

Presumably, this docket was sent to me by mistake.

Sincerely yours,

R. P. Fischer
Acting District Supervisor
Colorado Plateau District

Enclosure

RPF/je

cc: W. R. Storms
A. H. Koschmann
W. H. King
G. J. file
Reading file

It was

224 New Customhouse
Denver 2, Colorado

June 9, 1953

Memorandum

To: W. R. Storms (with brochure)
R. P. Fischer (with brochure)

From: Field Team, Region IV

Subject: Docket No. DMEA 3055 (Manganese), W. P. Birchfield, Jr., Luna County, New Mexico

Enclosed is an application for exploration assistance submitted by W. P. Birchfield, Jr.; the commodity is manganese.

A field examination should be made and a report submitted.

John F. Shaw
John F. Shaw, for
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosure

JFS:fwo

cc Subject
Chron
Koschmann (2)

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

Defense Minerals Administration
RECEIVED
JUN 2 1953

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

Not to be filled in by applicant

Docket No. DMEA-3055
Metal or Mineral
Date Received 6/2/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: W. P. Birchfield, Jr., Box 1001, Deming, New Mexico

(*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 One standard mining claim 600 ft. by 1500 ft. lying in the S½SW¼ of Section 32, T-25S, R-7W, Luna County, State of New Mexico.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Issued from State of New Mexico, lease M-3107, August 30, 1951

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

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

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

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. attached Physical Description

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

(*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

Manganese

(*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.

see sketch enclosed

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☒ Use of equipment owned by you ☒ Other labor

Explain in detail on acompanying paper: attached

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 May 25, 1953

W. P. Burchfield Jr.
(Applicant)

By

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

Assay of ore from Deming Purchase Depot

12-14-51	B-1	18.50	36.35%Mn	$ 980.50	672.48
1- 9-52	B-2	14.19	32.15	571.86	456.21
1- 9-52	B-3	11.01	16.65	100.74	183.32
2-18-52	B-4	12.46	18.8	152.01	234.25
2-21-52	B-5	5.60	17.55	59.64	98.25
2-26-52	B-6	5.31	35.3	257.39	187.44
4-12-52	B-7	7.20	23.85	147.96	171.72
4-12-52	B-8	8.06	25.25	179.34	203.52
4-22-52	B-9	6.31	20.8	97.17	131.25
6-11-52	B-11	6.73	17.95	71.67	120.80
10-27-52	B-12	7.15	30.6	319.82	218.79
		104.52		2933.10	2658.06

(Signed) T. A. Mitchell
Metallurgist.

25.96 av

Average Grade = 25.93%

DMEA-3055

DMEA-3055

Application # M-3107 Lease # M-3107

MINING LEASE

Aug 30, 1951

LESSOR W. P. Birchfield, Jr. Box 1001 Deming, New Mex.

Annual rental $ 25.00 Paid in advance.

Payable annually in advance

For removal of MANGANESE .

MANGANESE

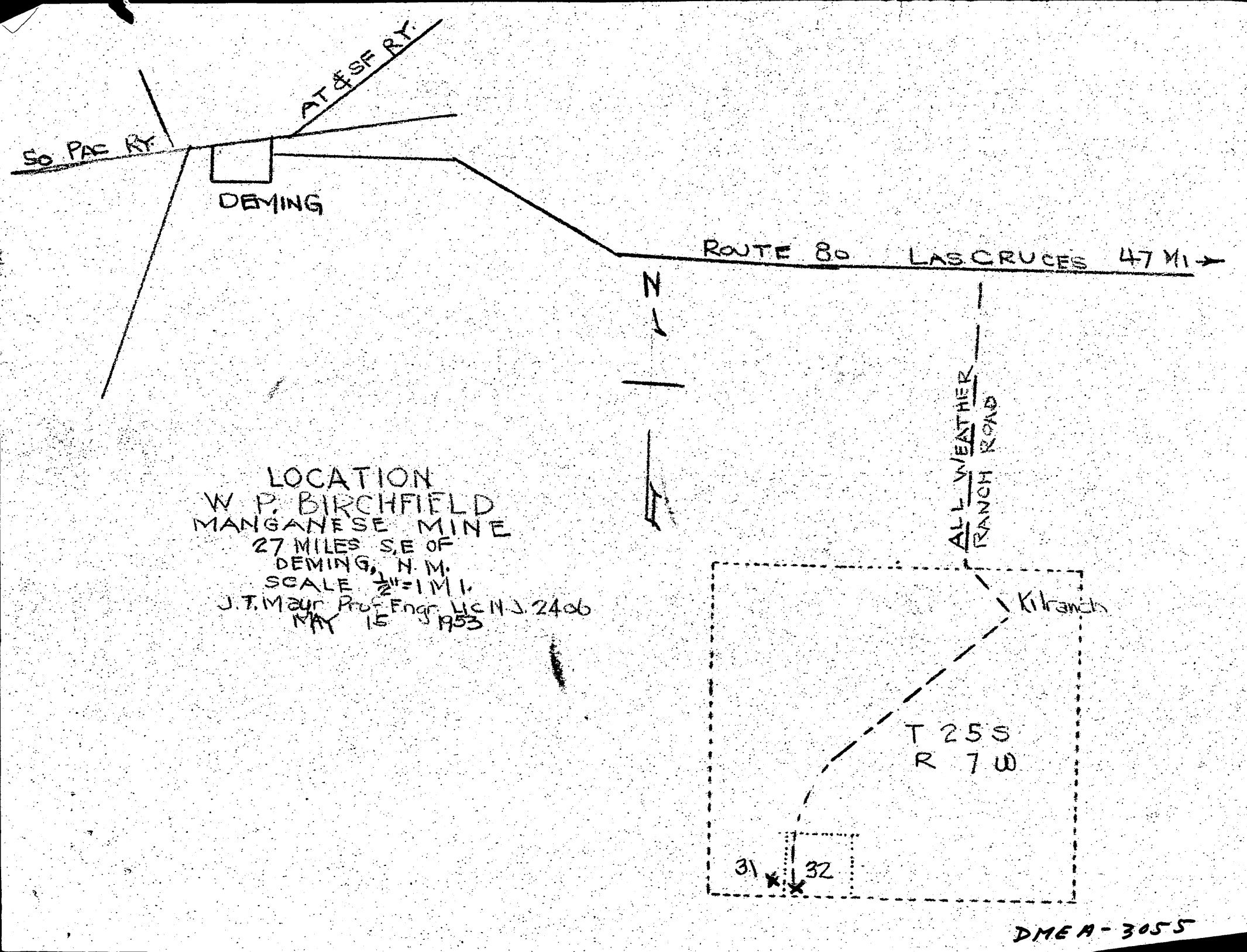
Commencing at the SW corner of Section 32, T-25 S, R-7W which is also the SW corner of this claim and true place of beginning. Thence N along the W boundary of said Section 32 600 feet to the NW corner of the claim, thence E 1500 feet to the NE corner, thence S 600 feet to the SE corner, thence W along the S boundary line of said Section 32 1500 feet to the SW cornerwhich is also the SW corner of this claim and true place of beginning.

Containing one standard mining claim lying in the S½SW¼ of Section 32, T25S, R-7W.

Above is a true copy of lease made on standard form of mining lease for State of New Mexico

Certified correct

SIGNATURE W. P. Birchfield Jr


AT & SF RY.
SO PAC RY.
DEMING
ROUTE 80
LAS CRUCES 47 MI
N
ALL WEATHER RANCH ROAD
LOCATION
W. P. BIRCHFIELD
MANGANESE MINE
27 MILES S.E OF
DEMING, N. M.
SCALE ½" = 1 MI.
J. T. Maur Prof. Engr. Lic N.J. 2406
MAY 15 1953
Kilranch
T 25 S
R 7 W
31
32

DMEA-3055

DME A-305-5

L.T. MAYR PROP. ENOK LAND SAP
MANGANESE MINE
W.W. & BIRCHFIELD
Mar 12-1963

X-904 5M 3-53
PRINTED IN U. S. A.

INGERSOLL-RAND COMPANY

EL PASO, TEXAS

DUPLICATE COPY
TO BE SENT TO _____

May 27th, 1953

Birchfield Manganese Mines
P. O. Box No. 1001
Deming, New Mexico.

Attn; Mr. W. P. Birchfield

Gentlemen :

In accordance with our discussion after visiting the various workings in your manganese mines yesterday we are pleased to attach quotations on equipment which it was decided would be required on each of these two properties.

As previously advised we contacted Mr. Frank Skidmore of Contractors Equipment and Supply Company, Albuquerque, N.M. who are our dealers, and they are agreeable to furnishing equipment with a 25 % down payment and six percent (6%) handling charge for the balance over a ten month period. This of course, would not apply to consumable items such as hose, steel, bits, cable etc., for which you would have to pay cash.

For your convenience we have made a separate list of equipment for each property, both on our equipment and that on which the writer obtained prices for you from other sources which are given in the tabulations.

Delivery on our equipment can be made at this time from Albuquerque and El Paso stocks, subject of course to prior sale. Literature on the equipment we are offerring has already been delivered to you so we will not include additional copies at this time.

We trust that our interpetation of your requirements will be found satisfactory and assure you your consideration of our equipment is very much appreciated. Please do not hesitate to let us know if we can be of further service.

Yours very truly,

Ingersoll Rand Company

F. L. Woods
HS
Enclosure

X-904 5M-53
PRINTED IN U. S. A.

INGERSOLL-RAND COMPANY
EL PASO, TEXAS

DUPLICATE COPY
TO BE SENT TO _____

Equipment required for Birchfield Mine
No. 2 Open Pit "Manganese"

One	(1)	GR 210 Gyro Flo Portable Air Compressor on four pneumatic tires Price F. O. B. Albuquerque, N. M.		$6315.00
One	(1)	ER 38 Jackdrill with 7/8" Hex X 4 1/4 Chuck Price		635.00
one	(1)	J 40 Wet Jackhamer with 7/8" Hex X 4 1/4" Chuck Price		380.00
Three	(3)	50 Ft. Lengths 3/4" Air Hose with Couplings Price Each	30.05	90.15
Three	(3)	50 Ft. Lengths 1/2" Water Hose with Couplings Price Each	26.25	78.75
Two	(2)	10 Ft. Lengths 3/4" Air Hose with couplings for tank Price Each	11.95	23.90
Two	(2)	Type "F" Air Line Lubricators complete with 12 1/2 FT Air Hose and Couplings Price EAch	33.00	66.00
Two	(2)	15 Gallon Water Tanks Price Each.....	61.00	122.00
Twelve	(12)	Sets CL 113 A 7/8" Hex X 4 1/4 shank Jackhamer and Jackdrill steel Lengths 2' 4' and 6' Price Each	25.00	300.00
Twenty Five	(25)	113 XCS 4 Carset Jackbits Price Each	11.05	276.25
		Total		$8237.05

All above items except portable are freight allowed to Deming, N. M.

Equipment for No. 2 Open Pit other than Ingersoll Rand on which prices were obtained as follows :

Mine and Smelter Supply Company, El Paso, Texas Telephone 2-5431

One	(1)	1500 Watt, 115 Volt, 1 Phase, 60 Cycle , 2 Wire Manually Controlled Light Pkant Price F. O. B. Minneapolis, Minn.....	525.00

continued on page two

X-904 PRINTED IN U.S.A.

INGERSOLL-RAND COMPANY

EL PASO, TEXAS

DUPLICATE COPY
TO BE SENT TO _____

continued from page one

Contractor Equipemtn and Supply Company, Albuquerque, N. M.

One	(1)	Minneapolis Moline Model RTI Tractor with Front end loader and bucket 1/2 yard Capacity (for surface loading) Price F. O. B. Albuquerque, N. M.	$3955.00
		Total	$4480.0

4. PHYSICAL DESCRIPTION

An open cut from haulage road leading into face of workings, has been made both as exploration and to provide ready access by trucks direct to working face. In the accompanying sketch is shown position of workings on claim and cross-section at point of ore removal. The working face has exposed a very fine vein with many branches which indicate the presence of a huge deposit ranging from a minimum of 1000000 long tons to a potential fo 5000000 long tons recoverable ore.

Applicants interest is from owners-lessee standpoint with a view to ~~production~~ exploration of strategic minerals for a profit.

Mine is readily accessible for examination and all weather haulage by automotive vehicles . Sketch map inclosed shows haulage of 27 miles over maintained road . 13 miles paved highway, balance graded road bed.

# # # #

(b) In opening up the existing face over 150 long tons of 28% average manganese ore, was removed along with over 500 tons of dump waste for the access ramp for truck haulage direct from working face.

On the basis of 40% deductable for quantity contingency, and 10% deductable for downgrading of ore vein, a minimum of 1000000 long tons of 28% grade ore is in sight , with a potential increase of 5000000 long tons and betterment of ore grade to as high as 45% with expected average of 38%.

(c) Removal could be facilitated by open cut process of excavation due to favorable contours with relation to existing and future haulage roads. Gradients would be of gradual nature and curvature to allow high efficiency of large hole bench drill production and short haul removal to transportation units for direct transportation to stock-piling Purchase Depot at Deming, N. M. Proper exploration will remove all hazards of loss for big scale production, by indicating safer margin of grade and quantity of ore, at the same time expediting its immediate preparation for removal.

(d) Location pland and road map inclosed. Deming, N. M. is good source of labor and materials with El Paso, Tex., Albuquerque, N. M., Phoenix, Ariz., all within short range haulage for more special articles of supply and equipment. Applicant resides within 10 miles of mine and already has established camp and shop facilities at the workings.

(e) R. E. A. Electric power lines have been contracted for, and lines are now within 3 miles or less of mine. Reliable supply of good water within ½ mile of site.

OPERATING EXPERIENCE AND BACKGROUND

Owner & Operator W. P. Birchfield, Jr.

50 Years of age. Born near site of mine. 30 years experience, solely in manganese mines of various types. Has followed operating and kept up with all current mining practice. Had advice and benefit of consultation with leading mining engineers and geologists . The area involved has been in control of applicants family for three generations and the benefit of valuable traditional information plus experience with modern methods and access to reliable advice make for excellent qualifications.

PROJECT--BIRCHFIELD MANGANESE
LOCATION SEC. 32 T--25 S.--R 7 W.

OWNER W. P. BIRCHFIELD JR.
ESTIMATED BY J. T. MAYR CHECKED BY F. W. & P. B. May 15, 1953

CLASS OF WORK	LABOR MONTH	EXPENDABLE MONTH	TOTAL
Ingersoll Rand Compressor			8,287.00
Drills & Drill Supplies			~~4x480x00~~
Light Plant & Loader Necessary?			4,480.00
Tools Tanks & assory equipment			500.00
Mine labor facilities & Repairs			800.00
Buildings, Ramps, Ladders Timbers & Chutes			1,000,00
Plant sub total			15,067.00
Labor 6 men @ $48.00 week	1,152.00		
Foreman 1 @ $72.00 "	288.00	why? with Super.	
Machinest @ $60.00 "	240.00	?	
Bookeeper @ $48.00 "	192.00	Not Allowable.	
	1,872.00		
12 months			22,464.00
Consultant & Subveys	50.00		
12 months @ $50.00		~~100~~	600.00
Compensation Insurance & tax		100.00 Too Low	
12 months			12 00.00
Total			39,331.00
OWNERS SHARE			
2 Dump Trucks & Drivers each	4,992.00	Not Necessary.	
12 months			9,984.00
Supertendant of works @	600.00		7,200.00
12 months			56,515.00
Estimated reciepts from ore sales 200 ton per month @ $25.00 per ton for 12 months			60,000.00
Balance			3,485.00

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

224 New Customhouse
Denver 2, Colorado

July 21, 1953.

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 3055 (Manganese), W. P. Birchfield, Luna County, New Mexico.

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

Three copies of the subject application were forwarded to this office together with a copy of a letter to the applicant signed by Robert E. Adams, dated June 3, 1953.

The applicant's estimated cost was $56,515.00, Government participation $42,386.25. No comments have been received from the commodity group.

The examining engineer recommends that the application be denied and we concur in this recommendation.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

HMC:cwm

cc: WREtorms w/copy of Final Report
RFRobinson w/copy of Final Report
AHKoschmann w/copy of Final Report
DMEA w/copy of Final Report
Mining Division w/copy of Final Report
Subject
AHKoschmann (2)
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

July 21, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 3055 (Manganese), W. P. Birchfield, Luna County, New Mexico.

Enclosed are nine copies of the final engineering report on the subject docket.

The applicant requested $56,515.00 to be used largely for equipment and development work.

The examiner believes that further exploration is not warranted and he recommends that the application be denied.

We concur in this recommendation.

W. H. King

W. H. King

Enclosures

Mining Division
Date Rec'd.
JUL 3 - 1953
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
MINING DIVISION
REGION IV

SOUTHWEST EXPERIMENT STATION
Box 4097
UNIVERSITY STATION
TUCSON, ARIZONA

June 30, 1953

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Report on Docket DMEA-3055, W. P. Birchfield's Manganese Claim, Florida Mountains Mining District, Luna County, N. Mex.

Enclosed are original and 8 copies of a report by John H. Soule' of the Bureau of Mines on the above property. A separate report will not be submitted by the Geological Survey as it did not participate in this examination.

As there seems little chance of discovering any significant quantity of manganese ore by the proposed work, and as the applicant's proposals are chiefly for equipment which does not properly come under an exploration project, the examiner recommends that a loan be denied. I concur with his recommendations.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC W. H. King (8)
R. F. Robinson
DMEA-3055
DF

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA-3055, W. P. Birchfield's Manganese Claim

Florida Mountains Mining District, Luna County, New Mexico

John H. Soule', Mining Engineer
U. S. Bureau of Mines

June 1953

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By John H. Soule'[1]

The Birchfield manganese claim is situated on the east slope of the Florida Mountains, Luna County, N. Mex. W. F. Birchfield, Jr. has leased from the State of New Mexico one claim upon which he applied for Government assistance from the Defense Minerals Exploration Administration to explore for manganese deposits. The application, Docket DMEA 3055, was sent to the field for an examination of the property, and the examination was made on June 16, 1953. Previous examinations of the property and the area have been made by personnel of the Federal Bureau of Mines and Geological Survey.

The manganese deposits occur in limestone, and from surface indications seem to be related to the bedding. However, underground exposures indicate that the deposits are very irregular and crosscut the bedding, as well as follow along it. The workings that follow the mineralization are tortuous.

All of the deposits are of small size. The economic manganese mineralization has an average width of 2 feet, reaching a maximum of 6 feet. Lateral extensions rarely exceed 25 feet. The zone of mineralization has been developed to a depth of approximately 60 feet. Three mineralized zones, approximately 150 feet apart, are shown in an adit, 323 feet long. Some stoping was done on the exposures midway in the adit and near the face.

1/ Mining Engineer, Bureau of Mines

Psilomelane is the predominant manganese mineral at the surface, giving way in depth to wad which consists mostly of pyrolusite. Manganiferous calcite in an abundant gangue mineral. The grade of the mined ore varied from 12.2 to 37.9 percent manganese. The 102 tons shipped during 1951 and 1952 averaged nearly 26 percent manganese. Indicated and inferred ore reserves are insignificant and additional exploration would only indicate additional ore at depth and probably beyond the economical limits of mining.

In spite of the relative accessibility of the property, the availibility of supplies and labor, and the seeming competence of the operator, denial of the request for Government assistance is recommended because of the improbability of making a significant discovery due to the small size of the deposits, the small amount of minable ore on the claim, and because the applicant proposes work consisting of development and production instead of exploration.

DMEA-3055, W. P. BIRCHFIELD'S MANGANESE CLAIM
FLORIDA MOUNTAINS MINING DISTRICT, LUNA COUNTY, NEW MEXICO

Engineering Report

By John H. Soule'
Mining Engineer
U. S. Bureau of Mines

June 1953

DMEA-3055, W. P. BIRCHFIELD' MANGANESE CLAIM
FLORIDA MOUNTAINS MINING DISTRICT, LUNA COUNTY, NEW MEXICO

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INTRODUCTION

W. P. Birchfield, Jr., operator of the Birchfield manganese mine in the Florida Mountains, Luna County, N. Mex., applied for Government assistance from the Defense Minerals Exploration Administration to explore his property. His application, Docket DMEA-3055, was sent to the field for an examination of the deposits, and this examination was made on June 16, 1953.

Previous examinations of the deposits were made by James E. Bell of the Bureau of Mines in June 1940, by Donald H. Mullen of the Bureau of Mines in September 1942, and by Sherman K. Neuschel of the Geological Survey in the latter part of 1942.

ACKNOWLEDGMENTS

Acknowledgment is made of the material obtained from the reports made upon the property by personnel of the Bureau of Mines and Geological Survey, as well as material furnished by the applicant, W. P. Birchfield, Jr.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Birchfield manganese deposits are situated in the southwestern corner of sec. 32, T. 25 S., R. 7 W., in the Florida Mountains Mining District, Luna County, N. Mex. (see figure 1). Additional deposits lie in the adjoining sec. 31 to the west. These deposits were once (and still may be) covered by claims located by W. P. Birchfield, Jr.

The deposits are reached by travelling easterly from Deming, N. Mex. on U. S. Highway 70-80 for 13.6 miles, or nearly to a cotton gin just south of the highway. At this point, turn off the highway

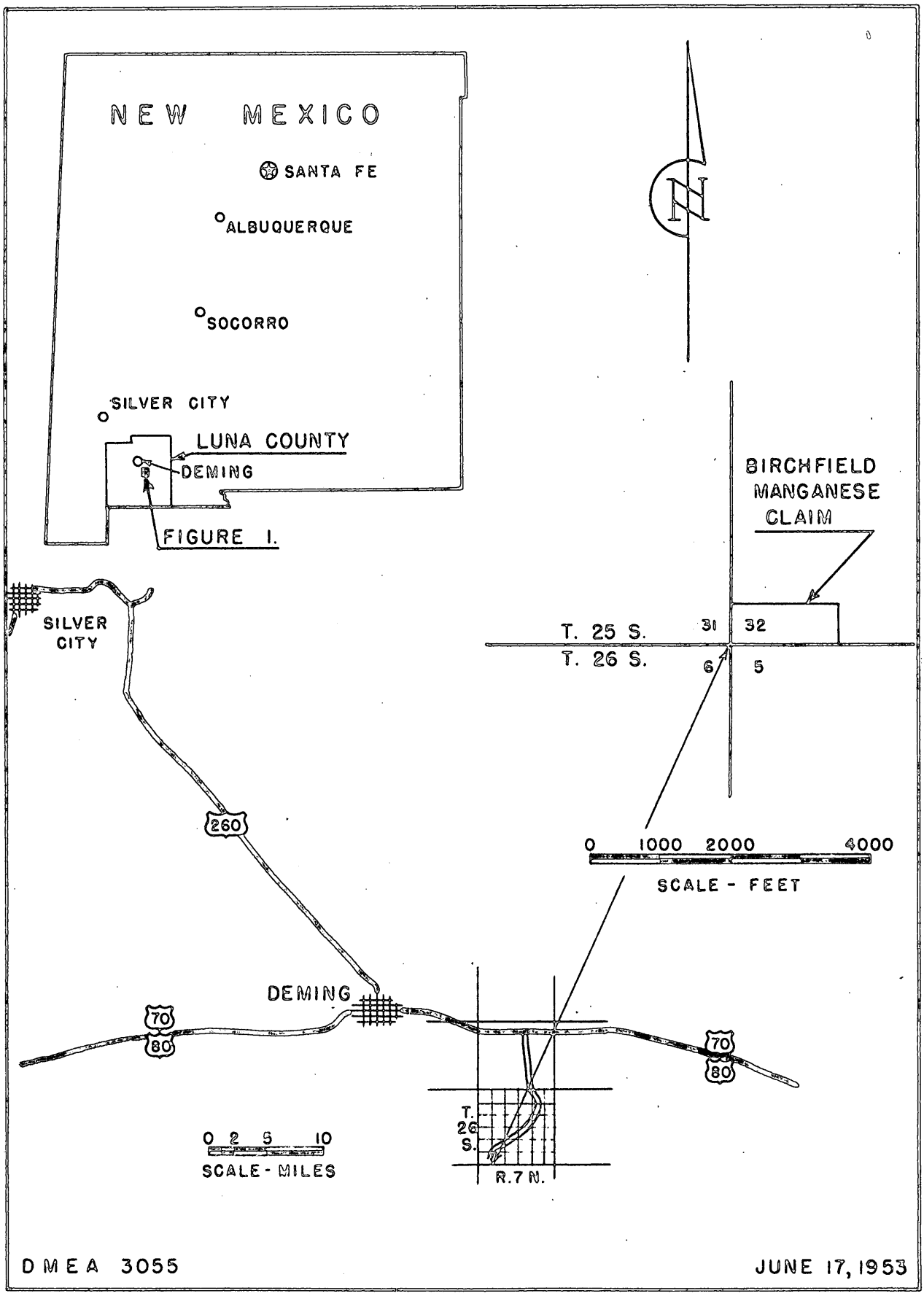

FIGURE 1.- LOCATION AND CLAIM MAP - BIRCHFIELD MANGANESE DEPOSITS
FLORIDA MOUNTAINS MINING DISTRICT, LUNA COUNTY, NEW MEXICO

and follow a ranch road to the south for 5 miles, thence southeasterly for 0.6 miles to a ranch house. From the ranch house, proceed southwesterly for 7.0 miles, take the left branch of the road for 0.2 miles, the right branch for 0.1 miles, thence the right fork for 0.3 miles to the mine. The property is readily visible from the road approaching the mine. The route is shown in figure 1. There is an alternate route into the property which was not checked.

The Florida Mountains are very rugged and rise abruptly from the surrounding bolsons. The Birchfield manganese deposits lie on the east slope of the mountains just above the bolson. The topography in the vicinity of the claims is not very rugged although some of the hill slopes are fairly steep. The deposits lie at an approximate altitude of 4,700 feet.

The area is quite arid. It is probable that the annual precipitation rarely exceeds 10 inches. There are no permanent streams in the locality although a spring about half a mile northwest of the mine would furnish sufficient water for a small operation.

Summer temperatures are hot and freezing weather common, but usually not prolonged during the winter. Desert vegetation exists, consisting of grasses, cacti and various shrubs. There is no timber in the vicinity suitable for mining purposes.

Living accommodations at the mine are most limited and primitive. Accommodations are available at Deming, 27 miles from the mine. Services and minor supplies can be obtained at Deming while El Paso, Texas, 104 miles to the southeast, is the nearest source of major mining supplies.

HISTORY AND PRODUCTION

The first claims on the Birchfield manganese deposits reportedly were located in 1905 with Birchfield making his first locations in 1912. Subsequent relocations reportedly were made.

Although a little work was done on the claims since they were first located, it seems that no manganese ore was shipped until 1942 with the establishment of the Government stockpile at Deming. Records for the area show that 457 tons of manganese ore was accepted at the stockpile. It is not known just what proportion of the production was made from the 1 claim for which the DMEA assistance was applied for. At one time, Birchfield had (and may now have) 12 claims in the area. It is possible that some production was made and not shown in the following table. Any such unreported production must have been small. One shipment of ore, not shown in the following table, was rejected because it was below acceptable grade.

TABLE I. Manganese production from the Birchfield Claim.

Date	Manganese, Long Tons	Manganese, percent
July-August, 1942	175.62	33.3
Sept. - Nov. 1942	178.83	27.2
Dec. 1952-Oct. 1952	102.52	25.9
Total and average	456.97	29.3

OWNERSHIP AND EXTENT

In his application for DMEA assistance, W. P. Birchfield, Jr. lists one claim upon which the work is to be done. This claim is leased from the State of New Mexico, the lease being numbered M-3107 and dated August 30, 1951. In 1942, Birchfield had 12 locations in the area, 2 of which were on state land.

DESCRIPTION OF THE DEPOSITS

All of the manganese deposits in the area occur in a tilted fault block of El Paso limestone of Ordovician age. This limestone is dolomitic. The beds strike from N. 25° E. to N. 35° E. and dip to the southeast at angles varying from 50 to 70°. Small rhyolite dikes occur in the limestone, some near the deposits.

The surface exposures of the deposits seem to indicate replacement ore bodies along the bedding of the limestone. This is not verified by subsurface exposures where the deposits, where stoped, are very irregular both laterally and vertically, often crosscutting the beds. Although the deposits may vary in thickness up to 20 feet, the ore rarely exceeds 6 feet and averages about 2 feet. No stoped areas exceeded 25 feet along the strike. There are many voids in the underground exposures suggesting the filling of caves with the manganese minerals and the accompanying gangue minerals.

At the surface, psilomelane is the predominant manganese mineral, while underground wad predominates, this consisting largely of pyrolusite. Manganiferous calcite in the predominant gangue mineral, accompanied by a manganiferous sandstone, some limonite, and a little calcite. In places these minerals seem well mixed with the ore minerals and sorting would constitute a problem. In other places the ore is distinctive and can be separated from the gangue with ease.

In the adit shown in figure 2, there are 3 manganese zones along which a little stoping has been done. These zones are a little over 150 feet apart and the intervening material is barren of manganese. On the surface, there are about 15 manganese mineralized areas, of which only 4 or 5 are on the claim upon which the applicant proposes the project.

MINABLE ORE RESERVES

It is difficult to calculate ore reserves for so many small deposits. It is doubtful if any single deposit would contain over 100 tons of ore although more would be obtained from deposits within a mineralized zone. In the aggregate, there may be indicated about 1,500 tons of ore containing from 25 to 30 percent manganese. Records of past shipments show that the manganese content varied from 12.2 to 37.9 percent with an average of nearly 30 percent on accepted shipments. It is doubtful if over one half, or 750 tons of ore could be indicated on the one claim proposed for exploration.

Inferred reserves may equal the indicated ore but the additional cost of mining the deeper ore through tortuous workings might preclude its being termed ore.

PRESENT STATUS

At the time of the examination, one man was working on the Birchfield claim. He reported that 2 or 3 more were expected soon. It seems evident that very little work had been done on the claim in 1953.

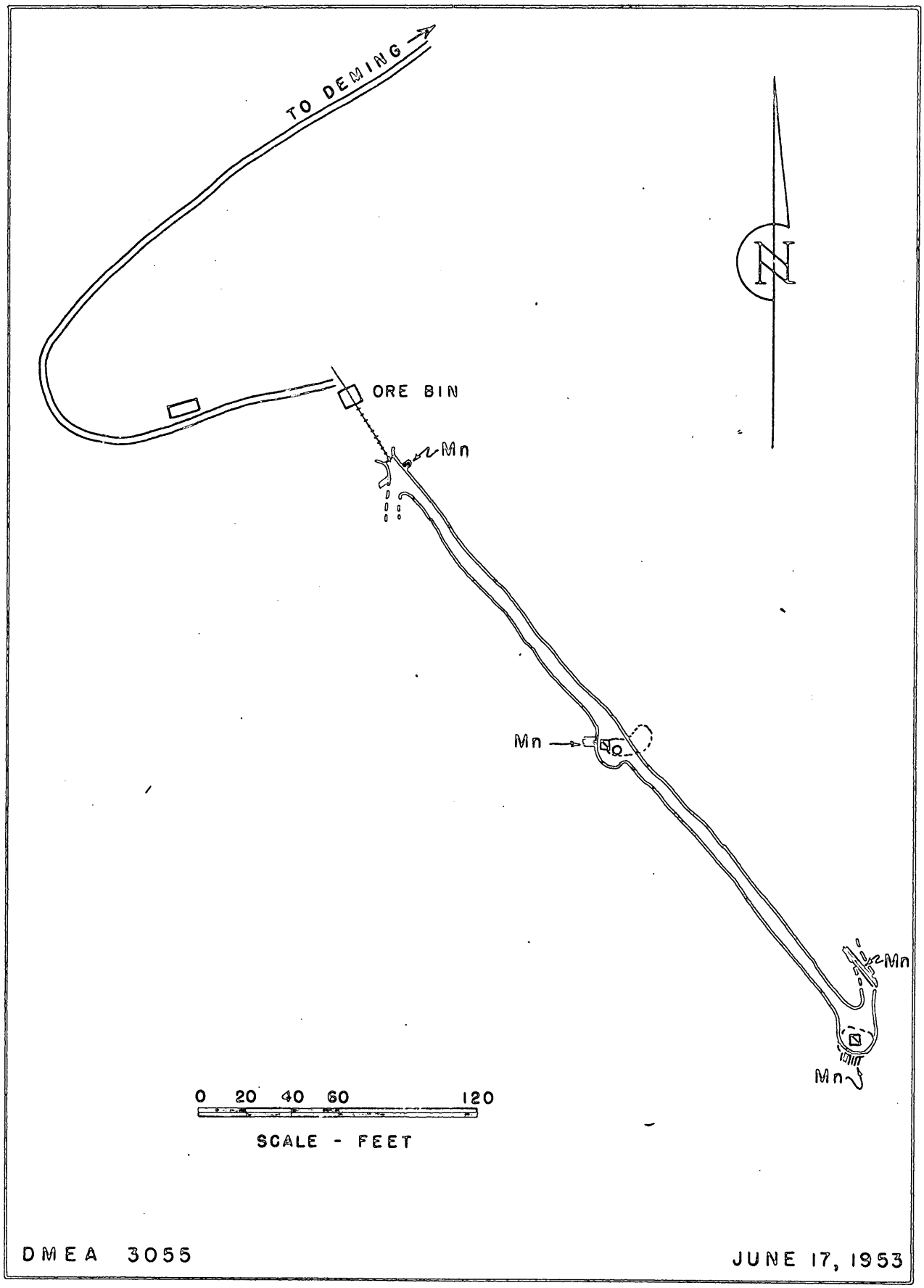

FIGURE 2. - SKETCH MAP OF ADIT, BIRCHFIELD MANGANESE CLAIM

The mine workings consist of a number of open cuts, the largest of which is nearly 50 feet long, 10 feet wide, and 10 to 15 feet deep. Underground workings consist of a few short adits, and the one shown in figure 2 which was 323 feet long. Small stopes were made on mineralized zones within this deep adit.

PROJECT PROPOSALS AND COSTS

The applicant for Government assistance, Docket DMEA-3055, proposed a project that consists largely of development work with attendant production. Little exploration would be done by the proposed work other than to extend possible ore zones to depth. This project was to have cost an estimated $56,515.00 of which nearly one third was to be used in equipping the mine.

A study of the applicant's costs reveals many items unnecessary for an exploration project. Some of these items are listed as follows: light plant and tractor loader, as well as 2 dump trucks and their drivers, which were to constitute part of the operator's share of the project costs. Superfluous labor is reflected in the listing of a bookkeeper and machinist as necessary labor.

It was the applicant's intention to start an open cut, allowing the entry of trucks to the deposits which then could be mined by open pit operations. This is not feasible because of the small size of the deposits which would permit little dead work. In addition most of the pits observed seemed to have reached the limits of pit mining and future work could best be done by following the ore.

It is evident that the present surface and subsurface exposures indicate the type and quality of the deposits and that exploration, as such, would serve but little purpose. It probably would be best to continue mining the exposures to their economic limits. In any event, such a discovery would not be termed significant. It is likely that the ore will become impoverished with depth as suggested at the Luna mine, about 10 miles to the north.

In order to repay the Government's share of $42,386.25 of the $56,515.00 proposed to be spent by the applicant, a total of nearly 34,000 tons of manganese ore valued at $25.00 per ton would be necessary. It is a virtual impossibility to find that amount of ore on the Birchfield claim.

CONCLUSIONS

The following conclusions were derived from an examination of the Birchfield manganese property and from reports on previous examinations of the property made by members of the Bureau of Mines and Geological Survey.

(1) The manganese ore bodies are small and numerous. A significant discovery on any single deposit is highly improbable and even in the aggregate, only a small tonnage of ore could be indicated. Most of any ore discovered would be largely on the downward extensions of mineralized zones where economic considerations would prevent much of this from being mined. Not all of the deposits are located on the one claim proposed as a project site.

(2) The program proposed by the applicant consisted of development and production. He proposed to make large open cuts to permit access of trucks to the deposits which would be mined by open pit methods. This is unfeasible because of the small size of the deposits, most of which have reached any pit limit.

(3) A small tonnage of ore may be indicated and inferred in the area. Only a portion of this may be attributed to the Birchfield claim.

(4) Additional exploration seems unnecessary because present development has shown the character of the ore bodies and there is no reason to expect any change in this character at depth unless it be impoverishment which is highly probable. Mining of the deposits should be continued on the same small scale as done in the past until the economic limit of the depth of ore is reached.

(5) All of the labor and supplies necessary for such a project as proposed by the applicant seem to be available.

(6) The property is readily accessible. The roads would be impassable only when very wet and this for only short periods of time.

(7) The applicant has engaged in manganese mining on a small scale in the district for a number of years. It appears that he would be capable of supervising such a project as he proposed.

RECOMMENDATIONS

Based on conclusions 1 through 4, it is recommended that the application for Government assistance, Docket DMEA-3055, for exploring the Birchfield manganese claim be denied.