UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

WITHDRAWN
~~Terminated (or cancelled)~~ without certification. DMEA No. 2091

This is the official contract file containing all official records of the project. Duplicate material has been removed. The records contained in the files are checked and are arranged in this manner:

Left Side

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.

Schedule of Collections.

Operator's monthly reports and all attachments (latest on top).

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.

Interim Reports.

On-site Exam Report(s). (Tab)

Settlement Sheets.

If additional folders are required because of volume of records, show folder numbers and contents below:

Maps in folder number _____

Operator's Monthly Reports in folder number _____

JB
Reviewer's Initials

7973

(June 1951)

Docket No. DMA 2091X
Commodity Beryl-mica
Idm-E186

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this 18th day of October, 1951, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Gladys Wells
Custer, South Dakota

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of South Dakota, County of Custer described as follows: [3] the Warren Draw pegmatite, comprised of the Warren Draw Nos. 1, 2, and 3 Lode Mining Claims in the SE¼ of Section 35 and the SW¼ of Section 36, T.3S., R.3E., B.H.M.; 6.0 miles west-southwest of Custer, S.D. The claims are recorded in Book 17 of Locations, pages 94,95 and 96 respectively, in the office of the Register of Deeds of Custer County, S.D.

with respect to which the Operator represents and undertakes: [4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: No encumbrances

(*b*) ~~That he is a lessee, in possession and entitled to possession, and the subordination agreement of the lessor is attached.~~

3. *Exploration project.* The Operator, within Thirty (30) days from the date of this contract shall commence work on a project of exploration for [5] beryl and mica; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] Twelve (12) months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Any additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro rata share.

6. *Operating equipment.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. As to equipment purchased for the project, the Government will contribute its agreed pro rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* An itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, analytical work, accounting, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in this contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, taxes, or any other indirect costs not expressly allowed by these provisions, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 90 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $10,231.20, which is 90 percent of the agreed estimated total cost of this project, $11,368.00.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

15. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter, shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent for each additional full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the mineral deposit which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

16. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

17. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
Acting Director, Production Expansion Division
Defense Minerals Administration

(Operator)

By Gladys Wells

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

The Gladys Wells Property
Exploration Project Contract
The Warren Draw Pegmatite

EXHIBIT "A"

Exploration Project

Time Schedule-Month	Stage I*
1-2	1. Drill by contract a maximum of four diamond drill holes, aggregating not more than 600 feet, of BX core or larger to explore the Warren Draw pegmatite. The first two holes are to be drilled as shown on the attached map. Depth of each hole is to be mutually agreeable to the Operator and the Government. The exact location and the direction of the additional holes will be determined by the Operator upon the basis of results of previous drilling, subject to approval by the Government.

Stage II*

The work of Stage II will be undertaken only after completion of Stage I to the satisfaction of the Government.

3-8	1. Erect an approximately 14' x 16', gabled-roof, unfloored tool shed and change house.
	2. Drive an adit into the pegmatite to a maximum depth of 350 feet as shown on the attached map. The exact length, location and direction of the adit will be determined by the Operator upon the basis of the results of the drilling, subject to approval by the Government.

* As indicated in section 4 of the contract, all sub-contracts are subject to approval by the Government.

The proposed work and the estimated cost thereof is as follows:

Stage I

1. Diamond drill hole, 600 feet @ $5.00 per foot	$3,000.00
	$3,000.00

Stage II

1. Building (see Fixtures and Improvements)

2. Drive 350 feet of adit @ $20.48 per foot for labor and supervision, supplies and allowance for Operators equipment. Adit not to exceed 5' x 7' in the clear. $ 7,168.00

Sub-total $7,168.00

Summary of Estimated Costs.

Stage I	$3,000.00
Stage II, costs segregated in items below	
Fixtures and improvements	700.00
Operating Equipment	2,400.00
Depreciation allowance on equipment furnished by the Operator, 6 months @ $25.00/month	150.00
Labor and supervision	4,618.00
Rehabilitation and repairs	500.00
Total	$11,368.00
Government participation 90 per cent of above	$10,231.20

Fixtures and Improvements.

1. Building, gabled-roof and unflooored, 14' x 16' $ 700.00

Operating Equipment.

Equipment to be purchased

No additional equipment is to be purchased and the cost charged against the project.

Equipment to be Rented

No additional equipment is to be rented and the cost charged against the project.

Equipment to be furnished by the Operator on a depreciation basis:

	Cost	Monthly Allowance
1. Compressor, 160 cfm without power unit, jackhammer complete with mounting, hose, pipe, steel, mine car, track and all necessary accessories for the completion of the project within six months.	$1,500.00	$25.00

Supplies to be purchased

1. Powder, fuse, caps, bits, fuel, oil, carbide, ties, spikes, hand tools, etc.,		$ 2,400.00
	Sub-total	$ 2,400.00

Labor and Supervision.

1. The following labor will be employed at the rates shown:*

Stage I

All labor is included in the diamond drilling contract.

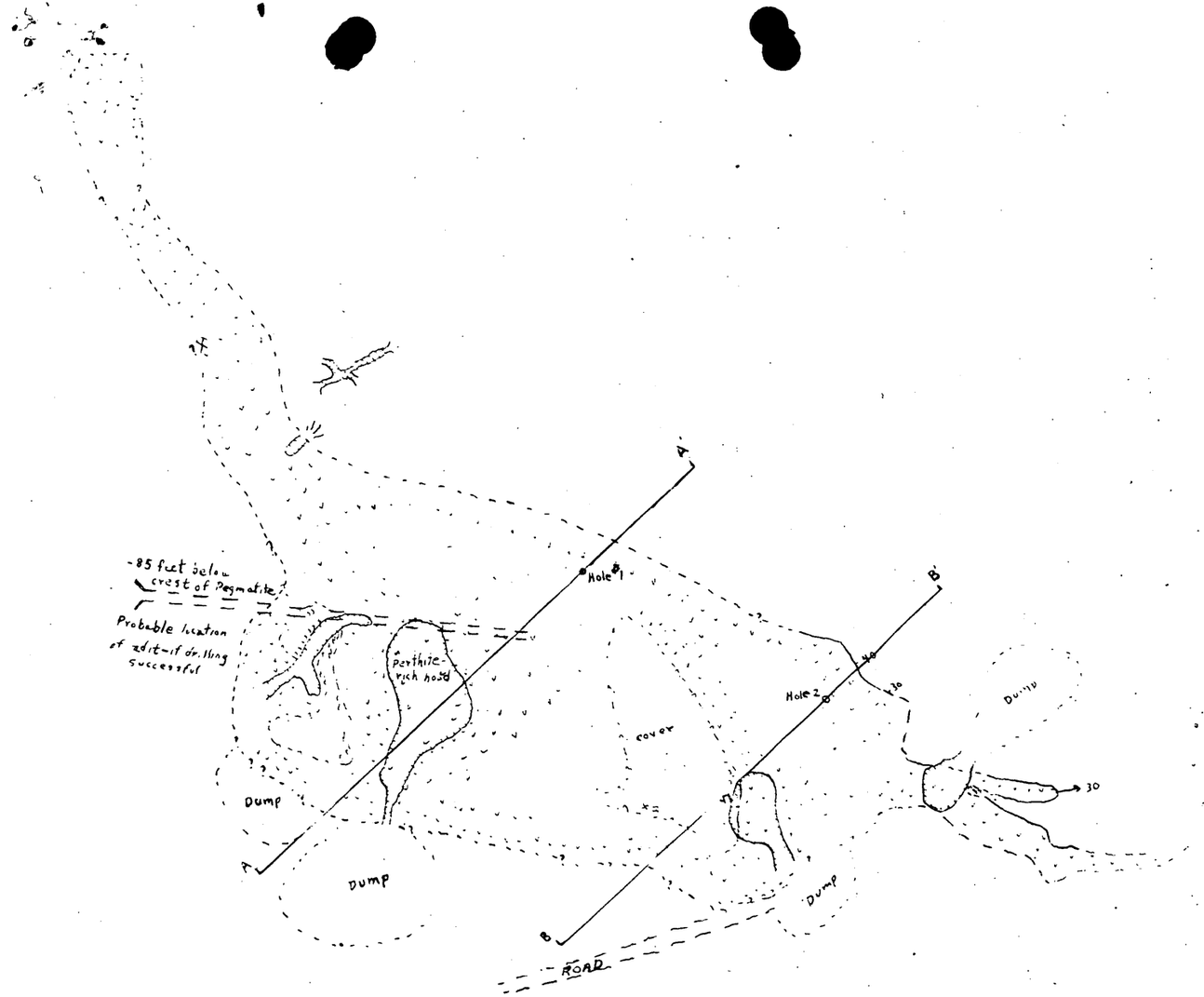
Stage II

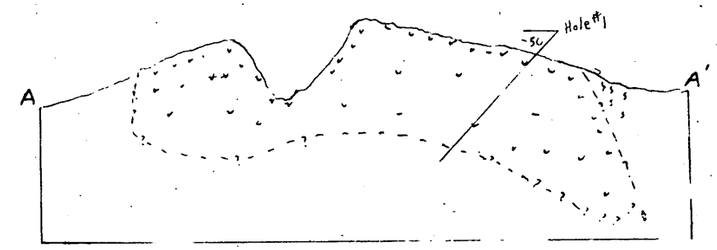
1 - Working foreman	@ $12.00 per day - 130 days	$ 1,560.00
2 - Miners	@ 10.00 " " " "	2,600.00
1 - Bookkeeper accountant	@ 1.00 per hour while actually employed	208.00
Payroll taxes and insurance		250.00
	Sub-total	$ 4,618.00

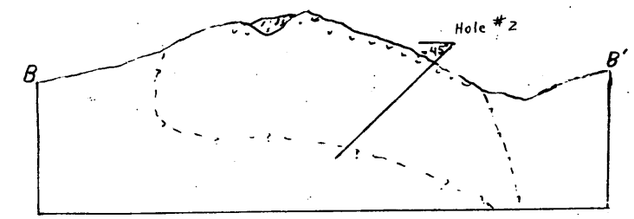
* The number of laborers employed in the fore-part of the adit is to be mutually agreeable to the Operator and the Government.

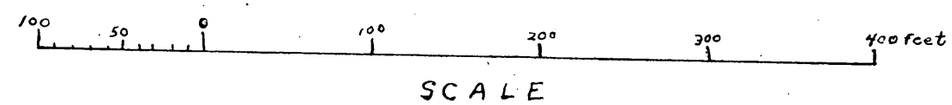
Rehabilitation and Repairs.

1. Repair of a tractor engine only for operating compressor		$ 500.00
	Sub-total	$ 500.00









EXPLANATION

PEGMATITE

40

PEGMATITE CONTACT WITH DIP

INFERRED CONTACT

DMA-2091X-Berg

SKETCH MAP, WARREN DRAW PEGMATITE, CUSTER COUNTY, S. DAK.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

DEFENSE MINERALS ADMINISTRATION
WASHINGTON, D. C.
SEP 19 1 36 PM '51

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. DMA-2091

Date received 9-19-51

Participation

Gladys Wells
Custer
South Dakota

Name and address of applicant

Date 9-10-51

FILL IN THIS BLOCK

Date of application Sept. 10, 1951

Estimated cost $16,102.50

Mineral or metal Beryl, mica, columbite

Percentage of Government participation 90%

Location of mine SE¼ sec. 35, SW¼ sec. 36, T. 3 S., R. 3 E., B.H.M., Custer County, S. Dak.

Date of filing MF-100 None

DMA Docket Number, if available 2091

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

(Name of company)	By Gladys Wells (Signature of authorized official)
(Date)	owner (Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

SEPT. 10, 1951
GLADYS WELLS
CUSTER, SOUTH DAKOTA
ATTACHED SHEET NO. 1

THE APPLICANT

1. Individual

2. See above.

3. See No. 1.

4. (a) The applicant has been engaged in buying minerals and mining for about 14 years, having had a great deal of experience with mining of strategic mica and beryl, and generally engaged also in prospecting and exploring for and mining all types of minerals which are produced in the area, particularly with reference to pegmatites. Applicant established the first commercial mica rifting and trimming plant in Custer, South Dakota, and operated the same for four years on an extensive basis, and to a limited extent, for about eight years, and has been engaged in buying and selling of non-metallic minerals, including beryl, tantalite, mica, amblygonite, and other rare minerals ordinarily produced from pegmatite dikes, for about 13 years.

(b) The Manager is to be Wiley Reed, who has had about 20 years experience in prospecting for and exploring of mineral deposits in this area, mining and production of minerals. Mr. Reed has mined several different mines in this area, from which a great deal of mica and beryl were produced.

5. I am the owner of the property.

6. There are no liens or encumbrances against the property.

7. See No. 5.

8. Financial Statement

ASSETS

Cash on deposit in Custer County Bank, Custer, So. Dak.	$ 2,000.00
Real Estate in Custer, So. Dak.	$20,000.00
Bonds - U. S.	$ 600.00
Mining Machinery and Equipment	$ 6,000.00
Ores and Minerals for sale	$ 1,000.00
Miscellaneous personal property	$ 1,000.00
TOTAL ASSETS	$30,600.00

LIABILITIES

None

9. Applicant is prepared to meet her part of the exploration expense.

10. (a) Two full mining claims and a fraction, joining the Tin Mountain Lode Claim 554' on the South and East, in Warren Gulch, known as the Warren Draw #1, Warren Draw #2, and Warren Draw #3 Lode Mining Claims.

(b) SE$\frac{1}{4}$ sec. 35 and SW$\frac{1}{4}$ sec. 36, T. 3 S., R. 3 E., B.H.M. or 6 miles west-southwest of Custer, S. Dak., as the same are more particularly

described in the Location Certificates thereof all recorded in Book 17 of Locations, Pages 94, 95, & 96, respectively, in the office of the Register of Deeds of Custer County, South Dakota.

11. Warren Draw #1, Warren Draw #2, and Warren Draw #3.

12. This mining property is located about six miles west of Custer, South Dakota, on Highway 16 about five miles, then northerly about one mile over a graveled road.

13. Ample water for the project is available on the property.

14. Applicant has on hand for use in the operation of the mine, the following mining machinery and equipment of a value in excess of $2,000.00, which machinery is proposed to be rented to the project, the said machinery and equipment being as follows:

Compressor (Ingersoll-Rand)
Jackhammer (Ingersoll)
Steel, Track, Cars, Hose, Pipe, and other miscellaneous mining tools and equipment

15. All of the ores and minerals can be sold in Custer.

16. History:

(a) This property has been mined for mica, beryl, feldspar, and tantalum, mostly mica. Applicant had a reclaiming plant for reclaiming mica located therefor several years, then when there was no market for mica and no market available, applicant sold part of the machinery. The building still stands. Applicant sold several hundred tons of scrap mica from this mine.

(b) The Tin Mountain Mine, which joins, has produced spodumene, beryl, mica, and feldspar. The same is owned by the Maywood Chemical Co., and held for reserve.

(c) None

17. The mine is not in production.

18. Ore

(a) The deposit is a pegmatite with an outcrop length of 750 feet and maximum width of 200 feet. The upper part of the pegmatite has produced feldspar, beryl, sheet and scrap mica, and lithia minerals.

(b) None

(c) Feldspar tonnage is large, probably in excess of 25,000 tons. Reserve tonnages of beryl and other minerals is mainly dependent upon presence of inner zones.

19. Conditions and circumstances sufficiently brought out by foregoing questions.

20. THE EXPLORATION

Mica and beryl, columbite-tantalite.

21. The proposed exploration is divided into two phases. Phase I includes 3 or 4 diamond core holes totaling 600 feet. The location and direction of these holes is the responsibility of the DMA field team; likewise, the interpretation of the geologic results. This phase of the work is proposed to ascertain information regarding the geology and the extension of the deposit in depth. This work should be completed in 40 working shifts or 2 months.

Phase II is the driving of approximately 350 feet of 5' x 7' adit drift to be located from data obtained in Phase I, so that it will result in obtaining the maximum information possible relative to the grade and extent of the beryl and mica-bearing zone. It is to be understood that Phase II will be pursued only if favorable results are obtained in Phase I. This part of the exploration should be finished in 120 shifts or 6 months.

22. The deposit is a zoned pegmatite known to contain beryl, sheet mica, columbite-tantalite and the related pegmatite minerals, perthite, amblygonite, and spodumene. The upper part of the pegmatite has a layer rich in perthite, characteristic of good zoned pegmatites, and it is believed that internal concealed zones, probably rich in beryl, will be present. The pegmatite has sufficient size so that a significant deposit can be expected. The pegmatite contains lithia-bearing minerals and is somewhat similar to the Tin Mountain pegmatite which is located only a short distance away.

23.

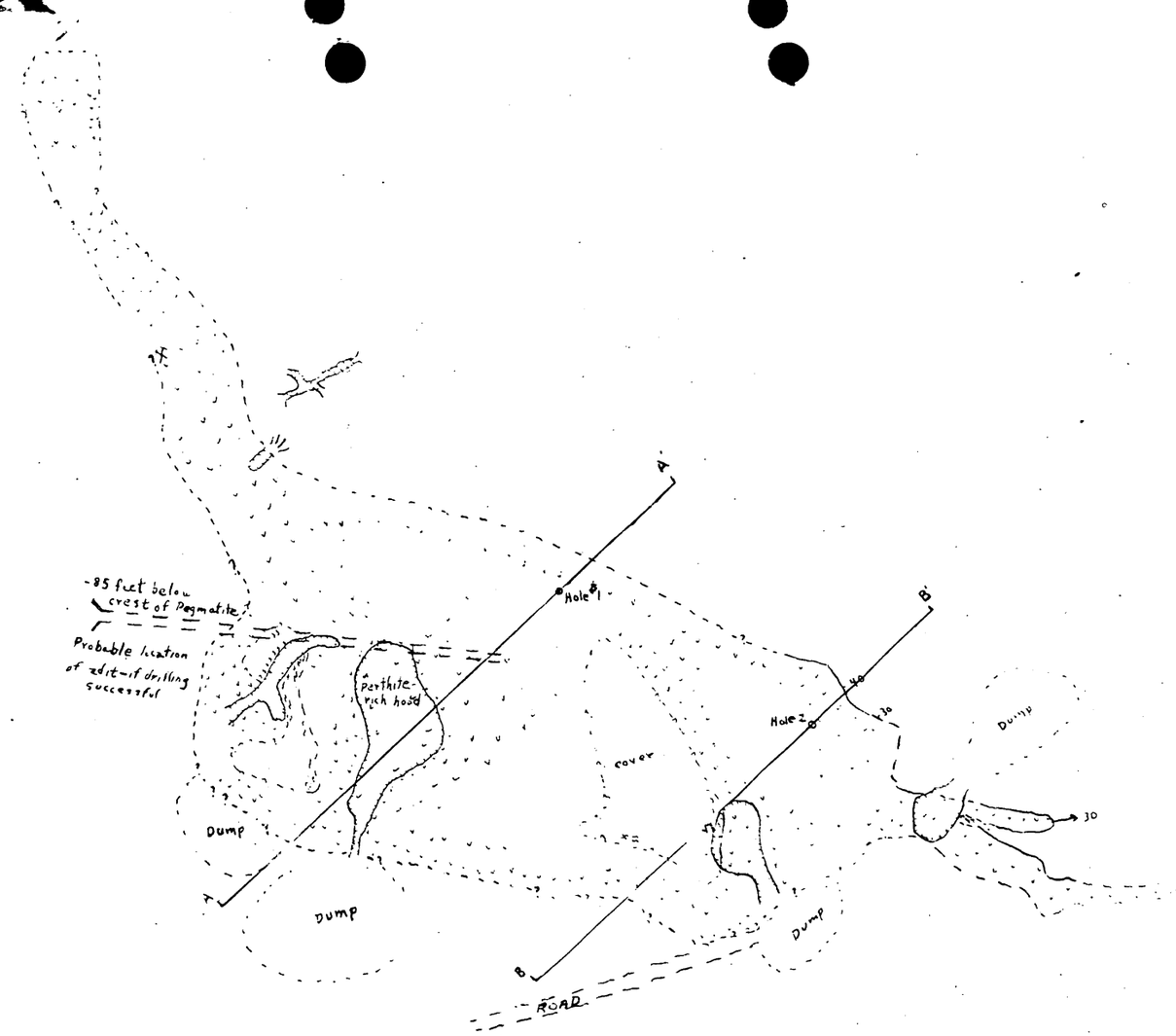
(a)	3 miners @ $1.25 per hr., or $10.00 per shift, plus 6 percent for insurance and taxes	$ 3,816.00
	1 bookkeeper @ $1.00 per hour	960.00
	Total	$ 4,776.00
(b)	1 foreman @ $1.50 per hr. or $12.00 per shift, plus 6 percent for insurance and taxes	$ 1,526.40
	Total labor and supervision	$ 6,302.40
(c)	None	
(d)	Construction of 14'x16' gable-roofed, unfloored tool and change room	$ 700.00
(e)	New 50 hp. diesel power unit for air compressor	2,200.00
(f)	Rent for 160 cfm compressor, jackhammer, drill steel, track, car, and miscellaneous small tools @ $250 per mo.	1,500.00
(g)	Contract diamond core drilling @ $5.00 per foot	3,000.00
(h)	Supplies (explosives, bits, steel, fuel oil, etc.)	2,400.00
(i)	None	
	Total cost of project Phase I ($3,000) plus Phase II I$13,102.40)	$ 16,102.40

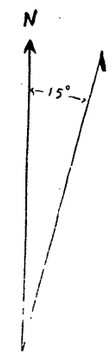
24. Phase I:

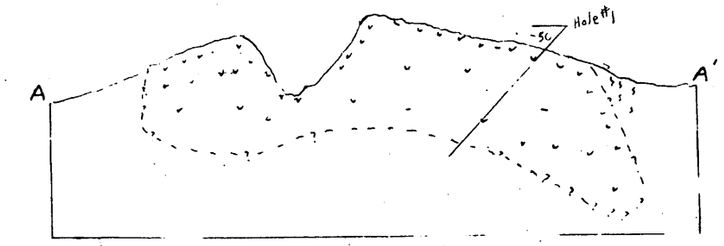
1st mo. - 300 ft. core drilling	$ 1,500.00
2nd mo. - 300 ft. core drilling	$ 1,500.00

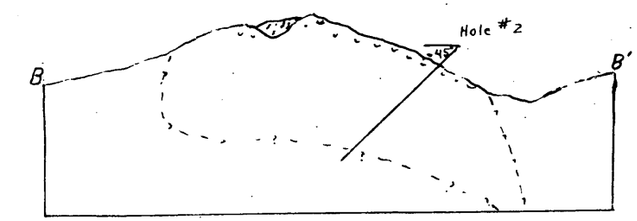
Phase II

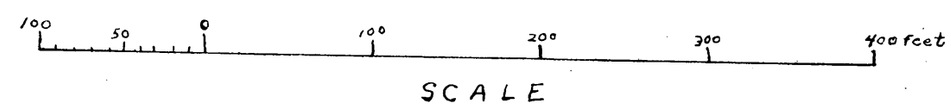
3rd mo. - 50 ft. drifting & construction of tool shed & purchase of power unit	$ 4,357.50
4th mo. - 60 ft. drifting	1,749.00
5th mo. - 60 ft. drifting	1,749.00
6th mo. - 60 ft. drifting	1,749.00
7th mo. - 60 ft. drifting	1,749.00
8th mo. - 60 ft. drifting	1,749.00
	$ 13,102.50











EXPLANATION

PEGMATITE

40

PEGMATITE CONTACT WITH DIP

INFERRED CONTACT

SKETCH MAP, WARREN DRAW PEGMATITE, CUSTER COUNTY, S. DAK.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C. 600

January 15, 1952

Memorandum

BL

To: Acting Administrative Officer

From: Acting Chief, Non-Metallic Minerals Division

Subject: Gladys Wells, Custer, South Dakota
DMEA-2091, Beryl-Mica Idm-E186

As per memorandum from Executive Officer, DMEA Field Team, Region V, it is suggested that this contract be withdrawn as the applicant, Mrs. Gladys Wells, has refused to sign the contract.

LGH

Lawrence G. Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
~~WASHINGTON 25, D. C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

File under 2092x E188

November 29, 1951

Memorandum

To: C. O. Mittendorf, Administrator, Defense Minerals Exploration Administration, Interior Building, Washington, D. C.

From: Executive Officer, DMEA Field Team, Region V

Subject: Docket DMA-2091x, Contract Idm-E186 (Warren Draw) Recd & filed
Docket DMA-2092x, Contract Idm-E188 (High Climb)
Gladys Wells, Custer, South Dakota

Returned are the six copies of each of the subject contracts returned by Mrs. Wells unsigned. A copy of the transmittal from our Rapid City field office pertinent to each one is attached giving the reason for her refusal to consummate the contract.

There is nothing that I could add to this explanation. The only suggestion that I could make is that perhaps the contract Idm-E186 be withdrawn and that contract Idm-E188 might be held in abeyance until next summer. However, I would be of the opinion that nothing will be done regarding either.

A. B. Needham
Executive Officer
DMEA Field Team, Region V

Attachments

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
DEC 3 8 36 AM '51

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Rapid City Field Office
School of Mines Campus
Rapid City, South Dakota

Copied for Mittendorf
Dutton
Region V
ABNeedham:dt-11/29/51

November 27, 1951

Memorandum

To: A. B. Needham, Executive Officer, DMEA Field Team, Region V

From: Supervising Engineer, Rapid City Field Office

Subject: DMA Docket No. 2091X, Contract Idm-E186, Warren Draw pegmatite, Gladys Wells

Attached are six (6) copies of the subject contract that were returned by the applicant, unsigned.

We have been advised that the property has been leased to John Ross for an extended period, and the applicant is no longer interested in exploration.

The deposit will be included as reserves to support the application for an expansion production loan by John Ross, now being investigated.

Signed

D. H. Mullen

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
DEC 3 8 36 AM '51

400
FILE COPY
SURNAME:

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

A. L. C.

Selfridge.

AIR MAIL

OCT 23 1951

Mr. A. L. Needham
Executive Officer, Region V
2908 Colfax Avenue, South
Minneapolis 8, Minnesota

Re: Docket No. DMA-2091X, Beryl, mica
Gladys Wells
Warren Draw Pegmatite
Exploration Project Contract
Idm-E186

Dear Mr. Needham:

Enclosed herewith are the original and five copies of the subject Exploration Contract, which I have signed for the Government, together with Exhibit "A" (3 pages) and one map.

These are to be presented to the Operator for his signature. If the terms and conditions of this contract meet with the approval of the Operator, one copy is to be given to him and one copy retained for your files. Please return the original and three copies to this office for distribution.

If any part of this contract does not have the approval of the Operator, the original and all copies of the contract are to be returned to this office together with the proposed changes for consideration.

Please note that the following major changes have been made in the contract as originally outlined in accordance with the information recently submitted by Mr. D. H. Mullen in a letter dated October 10, 1951:

1. The equipment to be furnished by the Operator has been listed on a depreciation basis rather than on a rental basis.

2. Instead of purchasing a new Diesel engine for the compressor a sum of $500.00 has been allowed for the repair of a tractor engine now on the property.

The above changes have reduced the total estimated cost of the project from $14,418.00 to $11,368.00.

Because of the proposed low daily average advance in the adit, the item on Labor and Supervision has been left flexible. It is possible that in the fore-part of the adit two men can accomplish the same amount of work as three without undue strain. The number of men to be employed in that section has been left mutually agreeable to the Operator and the Government (field team).

Sincerely yours,

(signed) FRANK E. JOHNSON ACTING

(for)

C. C. Mittendorf, Director
Production Expansion Division

F.J. 10.23

Enclosures-6

GCSelfridge/jem
10/18/51

APPROVED: SIGNED

Chairman, Coordinating Committee

SIGNED

Member, Bureau of Mines

SIGNED

Member, Geological Survey

cc to: Adm. Reading File
Reports & Records
Messrs. Mittendorf, Olund
Mr. Barr
Mr. Arundale
Mr. Norton
Mr. Moon
Mr. Selfridge
Field Team, Region V
Docket

140
DMA-2091X
FILE COPY
SURNAME:

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

October 17, 1951

Memorandum

To: Director, Production Expansion Division

From: Acting General Counsel

Subject: Gladys Wells exploration contract -- Docket No. DMA-2091X

N. S
R & R

The proposed exploration contract in this case, submitted to us on October 17, 1951, is approved as to legal form and sufficiency for signature on behalf of the Government subject to:

1. Proper signature on behalf of the applicant.

2. Proper dating prior to delivery.

3. Government approval of any subcontracts under which work upon the project is to be performed.

Your file is returned herewith.

John G. Liebert, Acting for
J. L. Hofflund, General Counsel

Attachment
RRGuthrie/ema

Copy to: Reports & Reaords
J. L. Hofflund
~~GEM~~ R. R. Guthrie
Chron.

a.e.

370

OCT 1 1951

Memorandum:

To: Director, Production Expansion Division
Defense Minerals Administration

DEPARTMENT OF THE INTERIOR
RECEIVED
OCT 1 1951
Defense Minerals Administration,
Production Expansion Division,

From: Director, Supply Division
Defense Minerals Administration

Subject: Recommendation for Contract Approval

Name of Applicant: Gladys Wells
Custer, S. D.

DMA No., 2091X

Commodity: Beryl-Mica-Columbite

Amount Requested: $16,102.50

Amount Approved: $14,418.00

Government Participation: 90% $12,976.20

Tom Lyon

Approved:

Tom Lyon

Director, Supply Division

OCT 1 1951

MEMORANDUM: Gladys Wells
Custer, S. D.

TO: Director, Production Expansion Division
Defense Minerals Administration

FROM: Director, Supply Division
Defense Minerals Administration

SUBJECT: Recommendation ~~Beryl-Mica-Columbite~~ al

Name of Applicant: 16,102.50

14,418.00

DMA No. 90 12,976.20

Commodity:

Amount Requested: $

Amount Approved: $

~~Contract~~ Participation: % $

Director, Supply Division

cc: Field Team, Region V
9-26-51

Tom Lyon

FILE COPY
SURNAME:

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

270

Workey
OB
A Parsons

September 26, 1951

Memorandum

To: Chief, Industrial Minerals Branch, DMA

From: Chief, Programming and Planning, DMA

Subject: DMA-2091X, Gladys Wells, Custer, S. D.
Commodities: Beryl, Mica, Columbite
Amount: 90% of $14,418.00

The prospective available supply of strategic beryl, mica and columbite, is far short of meeting defense requirements. Consequently, it is highly desirable that exploration for new domestic deposits be stimulated by any reasonable Government assistance to private interests. Any exploration project that holds promise of finding significant new reserves, merits consideration by Defense Minerals Administration.

A. B. Parsons

A. B. Parsons

DWASKEY:mp
cc: Field Team, Region V (2)
Mr. Mittendorf
Mr. Barr
Mr. Norton
Mr. Parsons
DMA Docket File

RECOMMENDATIONS

1. That an Exploration Aid Contract be granted in the amount of $14,418, Government participation 90%, in accordance with Exhibit "A" attached.

2. That the project be authorized in two stages, 1 and 2, stage "2" to be authorized only on successful completion of Stage 1 and approval of Field Team.

3. That applicant be allowed 30 days from contract date in which to begin work under the contract.

EXHIBIT "A"

Description of Work

Stage "1"

A maximum of 600' of diamond drilling (BX or larger) will be done by contract. A maximum of four individual holes will be drilled - locations of two of these are shown on attached map, if more than two are drilled, the location and direction of the additional holes will be mutually satisfactory to operator and Field Team.

Total allowable cost - $3,000, time limit - 2 months.

Recapitulation of Costs

Diamond drilling . . . . .600' @ $5.00 per ft . . . . . $ 3,000.00

Stage "2"

Subject to satisfactory completion of stage "1", an approximately 5' x 7' adit drift will be driven into the pegmatite to a maximum total length of 350'. Approximate location of this tunnel is shown on attached map; the exact location will be determined by Field Team and operator after completion of stage "1". 2.7 friday

There are no buildings on the property and an approximately 14' x 16' gable-roofed, unfloored tool shed and change house will be constructed.

The applicant proposes to purchase a 50 H.P. Diesel power unit to be used on a rented 160 CFM compressor. The Field Team has reported favorably by telephone (A. B. Needham, call to R. Waskey, 9/25/51) on this arrangement; it appears that a suitable complete compressor unit is not available locally on a rental basis.

Total allowable cost - $11,418, time limit - 6 months.

Recapitulation of Costs

Fixtures and improvements	350'	@	$ 2.00	$ 700.00
Equipment - rental	350'	@	4.29	1,500.00
Equipment - purchase	350'	@	6.29	2,200.00
Supplies - purchase	350'	@	6.86	2,400.00
Labor & supervision	350'	@	11.88	4,160.00
Accounting & Reports	350'	@	0.59	208.00
Payroll, taxes, insurance	350'	@	0.71	250.00
Total	350'	@	32.62	$11,418.00

Fixtures and Improvements

Stage "1"

Not applicable.

Stage "2"

1 - Gable - roofed, unfloored, tool room and change house $ 700.00

Equipment and Supplies

Stage "1"

All necessary equipment and supplies will be included in a drilling contract within the limits of the following:

Diamond drilling (BX or larger) 600' @ $5.00 per ft $3,000.00

Stage "2"

Rental - 160 CFM compressor (less power unit) jackhammer, complete with mounting, air hose, air pipe, steel and all necessary accesories; mine car and sufficient track for project
6 months @ $250.00 per month $1,500.00
Purchase 50 H.P. Diesel power unit 2,200.00
Purchase all necessary supplies, including explosives, bits, fuel, lubricants, carbide, ties and spikes, hand tools, etc. 2,400.00
Total . . . . . $ 6,100.00

Labor and supervision

Stage "1"

Included in diamond drilling contract.

Stage "2"

1 - Working foreman	@ $12.00 per day (max.)		$ 1,560.00 - 130 days
2 - Miners	@ 10.00 per day	"	2,600.00
1 - Bookkeeper-Accountant	@ 1.00 per hr	"	208.00
Payroll taxes and insurance			250.00 = 5.7%
			$ 4,618.00

Rehabilitation and Repairs

Not applicable.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
~~WASHINGTON, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

Dm 4-209

September 17, 1951

Memorandum

To: Tom Lyon, Chairman, Coordinating Committee, Defense Minerals Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, Field Team, Region V

Subject: Exploration applications

Here are four copies, each, of two applications for exploration assistance from Gladys Wells of Custer, S. Dak.

One is for core drilling to determine dike extent, followed by underground work for grade, at the Warren Draw 1, 2, and 3, in sec. 36-3S-3E, Custer County; and the other is for underground work at the High Climb pegmatite in sec. 27-2S-4E, Custer County. Both are for beryl, mica, and columbite.

Mrs. Wells had applications in previously. This office learned that the field team made some changes in the method of exploration when they reviewed the proposals, without consulting Mrs. Wells; and when contracts were drawn, she refused to sign because it was not her intent to conduct the type of project the team recommended.

She has agreed to submit new applications, and it is hoped you can process them as expiditiously as possible. Previous field reports are in your files for further information.

A. B. Needham
Executive Officer
Field Team, Region V

Enclosures

SEP 19 1 36 PM '51
DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.

Miss Gladys Wells
Custer, South Dakota

Subject: DMA-2091
Re: Exploration Loan
Warren Draw #1, 2, 3

My dear Miss Wells:

This will acknowledge receipt of your application dated September 10, 1951 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMA-2091 and referred to the Industrial Minerals Branch.

Kindly refer to DMA-2091 in any future correspondence relating to your application.

Sincerely yours,

Robert E. Adams

Robert E. Adams, Chief
Reports and Records Unit

2463

DMA Geologic Investigation of the Warren Draw Pegmatite,
Custer County, South Dakota

Gladys Wells - Applicant

The Warren Draw pegmatite is located approximately six miles west-southwest of Custer, South Dakota. It has been mapped in detail by the Geological Survey, but prints of this map are not now available.

The mine workings consist of four open cuts located in the upper part of the pegmatite. The largest of these is nearly 40 feet deep.

The pegmatite is zoned, but only two zones are visible at present. These are a wall zone of plagioclase-quartz-muscovite pegmatite, and an inner zone of perthite-quartz pegmatite. The wall zone is locally quartz-muscovite pegmatite, and in the largest open cut the inner zone is over 80 percent perthite. Elsewhere the inner zone contains only about 50 percent of perthite.

An unusual compositional banding of coarse-grained perthite-rich layers, interbanded with finer grained quartz-plagioclase-muscovite pegmatite bands, complicates the zoning. This banding strikes northwest and parallels the upper dip slope contact of the pegmatite. Shear zones, located parallel to the banding, are lined with spodumene and amblygonite.

Contacts are lacking from the western and southern sides of the pegmatite. The structure of the pegmatite is therefore very questionable, but it is believed that the bottom contact parallels the banding and that the main part of the pegmatite is flat-lying.

Beryl occurs near the inner side of the wall zone, associated with a scrap mica unit, and in small crystals in the wall zone. Past production has been small, but this may be the result of the fact that most of the mining has been from the upper perthite-rich "hood" of the pegmatite. A few pounds of sheet and punch mica were supposed to have been recovered during past operations.

On-Site Inv.

Reserves and Recommendations

The pegmatite is quite large and may have large reserves of beryl and mica. The pegmatite is zoned but there is little known about its internal structure. Internal lithia-bearing units may be present.

The pegmatite is a good risk for exploration, and some exploration should be done.

It is recommended that the pegmatite be explored in two stages. The first stage should consist of a maximum of 600 feet of diamond drilling, costing not over $3,000. This drilling will determine the size and internal structure. There will probably be four holes, although only two hole sites are shown on the map. Other holes will depend on the results of the first drilling. The area in the vicinity of hole 2 has the best developed wall zone of the entire pegmatite, and should be explored.

If the results of drilling are favorable, an adit should be driven from the valley west of the pegmatite - probably from the position shown on the map. The exact location would depend on the results of the drilling. The adit will probably have a length of 150 to 250 feet.

Jack A. Redden
U. S. Geological Survey