Government's Copy

MF-200
(Revised June 1954)

Docket No. DMEA 4194

Commodity Uranium and Selenium

Contract No. Idm-E 968

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

## EXPLORATION PROJECT CONTRACT[1]

It is agreed this JUL 1 9 1956 day of ....., 195..., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Shawano Development Corporation, a Florida Corporation, whose mailing address is 430 Park Avenue New York, New York, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and Map (Figure 5)

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

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

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] owner of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of an [6] assignment, [7] recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: Royalty claims of LeRoy Benson, Matt Weber, Carle Jebbens, Aubrey R. Stanton, Earl C. Beeler, Sylvia Beeler and P. S. Webber

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

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

of the land (lessor, seller, optionor, etc.), are attached, as follows: Subordination Agreements of above-mentioned royalty claimants.

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Uranium and Selenium. The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before October 31, 1956 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~or shall have incurred allowable costs (see Article 6) in an amount not less than the amount stated to be allowable costs set forth in Exhibit "A"~~ except as otherwise provided with respect to Stage II. See Article 1[illegible]

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $15,900.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $11,925.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; b[redacted] See Article 13.

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

*Subcategory (c)—Labor.*

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9. **See Article 13.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—

(a) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work except as otherwise provided in Exhibit 'A' with respect to Stage II."

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

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

(d) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon, is deleted.

(e) In the last sentence of Article 6(c), the words "Article 8" are substituted for the words "Article 9."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O. Mitteudorf

**Administrator, Defense Minerals Exploration Administration**

**SHAWANO DEVELOPMENT CORPORATION**
(Operator)

By .....

.....

---

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

.....

[CORPORATE SEAL]

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

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMEA-4194

## ANNEX I

The land referred to in Article 2 of the Contract consists of 47 contiguous unpatented lode mining claims situate in secs. 3, 4, and 5, T. 12 N., R. 92 W., and secs. 32, 33, and 34, T. 13 N., R. 92 W., 6th P.M. and B., Carbon County, Wyoming. The land is shown on the map entitled "Figure 5 -- Location of Drill Holes for Exploration Project (Revised) DMEA-4194," attached hereto and made a part hereof.

The notices of location of the claims are filed for record in the Office of the County Clerk of Carbon County at Rawlins, Wyoming, as follows:

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Poison Basin No. 5 | November 5, 1954 | 339 | 97 |
| Poison Basin No. 6 | November 5, 1954 | 339 | 98 |
| Poison Basin No. 7 | November 5, 1954 | 339 | 99 |
| Poison Basin No. 8 | November 5, 1954 | 339 | 100 |
| Poison Basin No. 9 | November 5, 1954 | 339 | 101 |
| Poison Basin No. 10 | November 5, 1954 | 339 | 102 |
| Poison Basin No. 11 | November 5, 1954 | 339 | 103 |
| Poison Basin No. 12 | November 5, 1954 | 339 | 104 |
| Poison Basin No. 13 | November 5, 1954 | 339 | 105 |
| North Slope No. 8 | November 5, 1954 | 339 | 107 |
| North Slope No. 8W | November 5, 1954 | 339 | 111 |
| North Slope No. 9 | November 5, 1954 | 339 | 109 |
| North Slope No. 9W | November 5, 1954 | 339 | 113 |
| Hope No. 3 | November 5, 1954 | 339 | 117 |
| Hope No. 4 | November 5, 1954 | 339 | 118 |
| Hope No. 5 | November 5, 1954 | 339 | 119 |
| Hope No. 6 | November 5, 1954 | 339 | 120 |
| Hope No. 7 | November 5, 1954 | 339 | 121 |
| Hope No. 14 | November 5, 1954 | 339 | 127 |
| Matt No. 1 | November 5, 1954 | 339 | 129 |
| Matt No. 2 | November 5, 1954 | 339 | 131 |
| Matt No. 3 | November 5, 1954 | 339 | 133 |
| Matt No. 4 | November 5, 1954 | 339 | 135 |
| Matt No. 5 | November 5, 1954 | 339 | 137 |
| Matt No. 6 | November 5, 1954 | 339 | 139 |

Contract withdrawn - 10/18/56

see letter to
applicant 10/10/56

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Leah No. 19 | November 17, 1954 | 339 | 384 |
| Leah No. 20 | November 17, 1954 | 339 | 386 |
| Leah No. 21 | November 17, 1954 | 339 | 388 |
| Leah No. 22 | November 17, 1954 | 339 | 390 |
| Jo No. 10 | November 17, 1954 | 339 | 532 |
| Jo No. 11 | November 17, 1954 | 339 | 533 |
| Jo No. 12 | November 17, 1954 | 339 | 534 |
| Jo No. 13 | November 17, 1954 | 339 | 535 |
| Jo No. 14 | November 17, 1954 | 339 | 536 |
| Jo No. 15 | November 17, 1954 | 339 | 537 |
| Jo No. 16 | November 17, 1954 | 339 | 538 |
| Jo No. 17 | November 17, 1954 | 339 | 539 |
| Jo No. 18 | November 17, 1954 | 339 | 540 |
| Jo No. 21 | November 17, 1954 | 339 | 541 |
| Jo No. 22 | November 17, 1954 | 339 | 542 |
| Jo No. 23 | November 17, 1954 | 339 | 543 |
| Jo No. 24 | November 17, 1954 | 339 | 544 |
| Jo No. 25 | November 17, 1954 | 339 | 545 |
| Jo No. 26 | November 17, 1954 | 339 | 547 |
| Jo No. 27 (Poison Wash No. 5) | November 5, 1954 | 339 | 145 |
| Jo No. 28 | November 17, 1954 | 339 | 548 |
| Jo No. 29 | November 17, 1954 | 339 | 549 |

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMEA-4194

## EXHIBIT "A"

## Description of the Work

### General Provisions

The work consists of exploration by rotary non-core drilling to test the uranium-selenium-bearing sandstone of the Browns Park formation of Miocene age. The location of the work is indicated on the attached map (Figure 5) referred to in Annex I.

All holes shall be drilled approximately 105 feet deep and have a minimum diameter of 2½ inches. Drilling is expected to be by both dry and wet methods. In dry-drilling, cuttings shall be collected with a Duclone sample collector or equivalent unit. In wet drilling, adequate facilities shall be provided for collecting all the cuttings. In either case, samples shall be taken at 2-foot intervals and checked for radioactivity. All samples indicating significant mineralization shall be analyzed chemically for uranium, and for selenium. The Operator may also make qualitative field tests wherever indications appear favorable for selenium, and samples indicating the presence of selenium shall be analyzed quantitatively. A portion of all samples taken shall be properly labeled and stored for inspection and disposition by the Government.

All drill holes shall be logged geologically and probed radiometrically and the record of such logging and probing, together with certified copies of all assay certificates, shall be submitted with the Operator's monthly progress reports.

All bulldozing shall be done with a D-7 bulldozer or equivalent unit.

The project work shall be supervised at all times by a competent mining engineer or geologist, who shall devote full time to the project.

The location, direction, inclination, and extent of all project work are subject to the approval of the Government.

The work is divided into two stages as hereinafter described. The Operator shall complete Stage I, and shall perform as much of the Stage II work as the Government approves in writing in advance.

## Stage I

The work in Stage I is to be performed in five separate areas as indicated on the map (Figure 5). The pattern and spacing of the holes in each area shall follow as closely as possible those shown on the map, but no hole shall be drilled closer than 50 feet to any existing drill hole. Access roads and drill sites shall be prepared by bulldozer as required. A total of 55 holes aggregating not more than 5,775 feet is divided as follows:

In Area 1, 3 holes shall be drilled approximately 600 feet apart, aggregating approximately 315 feet.

In Area 2, 5 holes shall be drilled on 150-foot centers, aggregating approximately 525 feet.

In Area 3, 21 holes shall be drilled on 200-foot centers, aggregating approximately 2,205 feet.

In Area 4, 9 holes shall be drilled on 200-foot centers, aggregating approximately 945 feet.

In Area 5, 17 holes shall be drilled on 500-foot centers east-west and 600-foot centers north-south, aggregating approximately 1,785 feet.

## Stage II

Prepare drill sites and drill not more than 34 holes aggregating not more than 3,570 feet as offsets to Stage I holes showing significant mineralization. Stage II holes shall be drilled at least 75 feet from any previously drilled hole.

## Estimated Cost of the Project

### Stage I

#### Actual Costs

Category (1) Independent Contracts

| | | |
|---|---|---|
| 3,850 feet dry non-core drilling @ $1.00/ft. | $3,850.00 | |
| 1,925 feet wet non-core drilling @ $1.75/ft. | 3,368.75 | |
| 70 hours bulldozing @ $10.00/hr. | 700.00 | |
| Categories (2) through (7) None | - | $7,918.75 |

#### Fixed Unit Costs (See Article 13)

| | |
|---|---|
| Incidental allowance for each foot of non-core drilling completed, 5,775 feet @ $0.23/ft. | $1,328.25 |

| | | |
|---|---|---|
| 50 Chemical analyses for uranium @ $3.50 each | $ 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | $1,863.25 |
| Estimated Total Cost of Stage I | | $9,782.00 |

**Stage II**

**Actual Costs**

Category (1) Independent Contracts

| | | |
|---|---|---|
| 2,380 feet dry non-core drilling @ $1.00/ft. | $2,380.00 | |
| 1,190 feet wet non-core drilling @ $1.75/ft. | 2,082.50 | |
| 30 hours bulldozing @ $10.00/hr. | 300.00 | |
| Categories (2) through (7) None | - | 4,762.50 |

**Fixed Unit Costs** (See Article 13)

| | | |
|---|---|---|
| Incidental allowance for each foot of non-core drilling completed, 3,570 feet @ $0.23/ft. | $ 821.10 | |
| 50 Chemical analyses for uranium @ $3.50 each | 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | 1,356.10 |
| Estimated Total Cost of Stage II | | $6,118.60 |

**SUMMARY**

| | |
|---|---|
| Estimated Total Cost of Stage I | $9,782.00 |
| Estimated Total Cost of Stage II | 6,118.60 |
| Estimated Total Cost of the Project (rounded) | $15,900.00 |
| Government Participation @ 75% | $11,925.00 |

Division Copy

MF-200
(Revised June 1954)

Docket No. DMEA 4194

Commodity Uranium and Selenium

Contract No. Idm-E 968

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

## EXPLORATION PROJECT CONTRACT[1]

It is agreed this JUL 1 9 1956 day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Shevano Development Corporation, a Florida Corporation, whose mailing address is 430 Park Avenue New York, New York, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and Map (Figure 5)

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

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

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] owner of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of an [6] assignment, [7] recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: Royalty claims of LeRoy Benson, Matt Weber, Carle Jobbens, Aubrey R. Stanton, Earl C. Beeler, Sylvia Beeler and P. S. Webber

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

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

of the land (lessor, seller, optionor, etc.), are attached, as follows: Subordination Agreements of above-mentioned royalty claimants.

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Uranium and Selenium. The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before October 31, 1956 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~or shall have incurred [illegible] except as otherwise provided with respect to Stage II. See Article 13.~~

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $15,900.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $11,925.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; b[redacted]. See Article 13.

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

*Subcategory (c)—Labor.*

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9. **See Article 13.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—

(a) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work except as otherwise provided in Exhibit 'A' with respect to Stage II."

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

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

(d) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon, is deleted.

(e) In the last sentence of Article 6(c), the words "Article 8" are substituted for the words "Article 9."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O. Mitchendorf

Administrator, Defense Minerals
Exploration Administration

SHAWANO DEVELOPMENT CORPORATION
(Operator)

By .....

.....

Indrity 7/13/56
Dunyer
"Appd/Sol. Off."
Ching
Ellis
Chambers
Selfridge

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

.....

[ CORPORATE SEAL ]

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

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMEA-4194

## ANNEX I

The land referred to in Article 2 of the Contract consists of 47 contiguous unpatented lode mining claims situate in secs. 3, 4, and 5, T. 12 N., R. 92 W., and secs. 32, 33, and 34, T. 13 N., R. 92 W., 6th P.M. and B., Carbon County, Wyoming. The land is shown on the map entitled "Figure 5 -- Location of Drill Holes for Exploration Project (Revised) DMEA-4194," attached hereto and made a part hereof.

The notices of location of the claims are filed for record in the Office of the County Clerk of Carbon County at Rawlins, Wyoming, as follows:

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Poison Basin No. 5 | November 5, 1954 | 339 | 97 |
| Poison Basin No. 6 | November 5, 1954 | 339 | 98 |
| Poison Basin No. 7 | November 5, 1954 | 339 | 99 |
| Poison Basin No. 8 | November 5, 1954 | 339 | 100 |
| Poison Basin No. 9 | November 5, 1954 | 339 | 101 |
| Poison Basin No. 10 | November 5, 1954 | 339 | 102 |
| Poison Basin No. 11 | November 5, 1954 | 339 | 103 |
| Poison Basin No. 12 | November 5, 1954 | 339 | 104 |
| Poison Basin No. 13 | November 5, 1954 | 339 | 105 |
| North Slope No. 8 | November 5, 1954 | 339 | 107 |
| North Slope No. 8W | November 5, 1954 | 339 | 111 |
| North Slope No. 9 | November 5, 1954 | 339 | 109 |
| North Slope No. 9W | November 5, 1954 | 339 | 113 |
| Hope No. 3 | November 5, 1954 | 339 | 117 |
| Hope No. 4 | November 5, 1954 | 339 | 118 |
| Hope No. 5 | November 5, 1954 | 339 | 119 |
| Hope No. 6 | November 5, 1954 | 339 | 120 |
| Hope No. 7 | November 5, 1954 | 339 | 121 |
| Hope No. 14 | November 5, 1954 | 339 | 127 |
| Matt No. 1 | November 5, 1954 | 339 | 129 |
| Matt No. 2 | November 5, 1954 | 339 | 131 |
| Matt No. 3 | November 5, 1954 | 339 | 133 |
| Matt No. 4 | November 5, 1954 | 339 | 135 |
| Matt No. 5 | November 5, 1954 | 339 | 137 |
| Matt No. 6 | November 5, 1954 | 339 | 139 |

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Leah No. 19 | November 17, 1954 | 339 | 384 |
| Leah No. 20 | November 17, 1954 | 339 | 386 |
| Leah No. 21 | November 17, 1954 | 339 | 388 |
| Leah No. 22 | November 17, 1954 | 339 | 390 |
| Jo No. 10 | November 17, 1954 | 339 | 532 |
| Jo No. 11 | November 17, 1954 | 339 | 533 |
| Jo No. 12 | November 17, 1954 | 339 | 534 |
| Jo No. 13 | November 17, 1954 | 339 | 535 |
| Jo No. 14 | November 17, 1954 | 339 | 536 |
| Jo No. 15 | November 17, 1954 | 339 | 537 |
| Jo No. 16 | November 17, 1954 | 339 | 538 |
| Jo No. 17 | November 17, 1954 | 339 | 539 |
| Jo No. 18 | November 17, 1954 | 339 | 540 |
| Jo No. 21 | November 17, 1954 | 339 | 541 |
| Jo No. 22 | November 17, 1954 | 339 | 542 |
| Jo No. 23 | November 17, 1954 | 339 | 543 |
| Jo No. 24 | November 17, 1954 | 339 | 544 |
| Jo No. 25 | November 17, 1954 | 339 | 545 |
| Jo No. 26 | November 17, 1954 | 339 | 547 |
| Jo No. 27 (Poison Wash No. 5) | November 5, 1954 | 339 | 145 |
| Jo No. 28 | November 17, 1954 | 339 | 548 |
| Jo No. 29 | November 17, 1954 | 339 | 549 |

EXPLORATION PROJECT CONTRACT
SHAMANO DEVELOPMENT CORPORATION
DOCKET NO. DMRA-4194

## EXHIBIT "A"

### Description of the Work

**General Provisions**

The work consists of exploration by rotary non-core drilling to test the uranium-selenium-bearing sandstone of the Browns Park formation of Miocene age. The location of the work is indicated on the attached map (Figure 5) referred to in Annex I.

All holes shall be drilled approximately 105 feet deep and have a minimum diameter of 2½ inches. Drilling is expected to be by both dry and wet methods. In dry drilling, cuttings shall be collected with a Duclone sample collector or equivalent unit. In wet drilling, adequate facilities shall be provided for collecting all the cuttings. In either case, samples shall be taken at 2-foot intervals and checked for radioactivity. All samples indicating significant mineralization shall be analyzed chemically for uranium, and for selenium. The Operator may also make qualitative field tests wherever indications appear favorable for selenium, and samples indicating the presence of selenium shall be analyzed quantitatively. A portion of all samples taken shall be properly labeled and stored for inspection and disposition by the Government.

All drill holes shall be logged geologically and probed radiometrically and the record of such logging and probing, together with certified copies of all assay certificates, shall be submitted with the Operator's monthly progress reports.

All bulldozing shall be done with a D-7 bulldozer or equivalent unit.

The project work shall be supervised at all times by a competent mining engineer or geologist, who shall devote full time to the project.

The location, direction, inclination, and extent of all project work are subject to the approval of the Government.

The work is divided into two stages as hereinafter described. The Operator shall complete Stage I, and shall perform as much of the Stage II work as the Government approves in writing in advance.

Stage I

The work in Stage I is to be performed in five separate areas as indicated on the map (Figure 5) The pattern and spacing of the holes in each area shall follow as closely as possible those shown on the map but no hole shall be drilled closer than 50 feet to any existing drill hole Access roads and drill sites shall be prepared by bulldozer as required A total of 55 holes aggregating not more than 5,775 feet is divided as follows:

In Area 1, 3 holes shall be drilled approximately 600 feet apart, aggregating approximately 315 feet.

In Area 2, 5 holes shall be drilled on 150-foot centers, aggregating approximately 525 feet

In Area 3, 21 holes shall be drilled on 200-foot centers, aggregating approximately 2,205 feet.

In Area 4, 9 holes shall be drilled on 200-foot centers, aggregating approximately 945 feet.

In Area 5, 17 holes shall be drilled on 500-foot centers east-west and 600 foot centers north-south, aggregating approximately 1,785 feet.

Stage II

Prepare drill sites and drill not more than 34 holes aggregating not more than 3,570 feet as offsets to Stage I holes showing significant mineralization. Stage II holes shall be drilled at least 75 feet from any previously drilled hole.

## Estimated Cost of the Project

Stage I

Actual Costs

Category (1) Independent Contracts

| | | |
|---|---|---|
| 3,850 feet dry non-core drilling @ $1.00/ft. | $3,850.00 | |
| 1,925 feet wet non-core drilling @ $1.75/ft. | 3,368.75 | |
| 70 hours bulldozing @ $10.00/hr. | 700.00 | |
| Categories (2) through (7) None | - | $7,918.75 |

Fixed Unit Costs (See Article 13)

| | |
|---|---|
| Incidental allowance for each foot of non-core drilling completed, 5,775 feet @ $0.23/ft. | $1,328.25 |

| | | |
|---|---|---|
| 50 Chemical analyses for uranium @ $3.50 each | $ 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | $1,863.25 |
| Estimated Total Cost of Stage I | | $9,782.00 |

**Stage II**

**Actual Costs**

Category (1) Independent Contracts

| | | |
|---|---|---|
| 2,380 feet dry non-core drilling @ $1.00/ft. | $2,380.00 | |
| 1,190 feet wet non-core drilling @ $1.75/ft. | 2,082.50 | |
| 30 hours bulldozing @ $10.00/hr. | 300.00 | |
| Categories (2) through (7) None | - | 4,762.50 |

Fixed Unit Costs (See Article 13)

| | | |
|---|---|---|
| Incidental allowance for each foot of non-core drilling completed, 3,570 feet @ $0.23/ft. | $ 821.10 | |
| 50 Chemical analyses for uranium @ $3.50 each | 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | 1,356.10 |
| Estimated Total Cost of Stage II | | $6,118.60 |

**S U M M A R Y**

| | |
|---|---|
| Estimated Total Cost of Stage I | $9,782.00 |
| Estimated Total Cost of Stage II | 6,118.60 |
| Estimated Total Cost of the Project (rounded) | $15,900.00 |
| Government Participation @ 75% | $11,925.00 |

Docket Copy

MF-200
(Revised June 1954)

Docket No. DMEA 4194

Commodity Uranium and Selenium

Contract No. Idm-E 968

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

## EXPLORATION PROJECT CONTRACT[1]

It is agreed this JUL 19 1956 day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Shawano Development Corporation, a Florida Corporation,

whose mailing address is 430 Park Avenue
New York, New York,

hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and Map (Figure 5)

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

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

(b) The Operator represents and undertakes that:

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

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: Royalty claims of LeRoy Benson, Matt Weber, Carle Jebbens, Aubrey R. Stanton, Earl C. Beeler, Sylvia Beeler and P. S. Webber

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

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

of the land (lessor, seller, optionor, etc.), are attached, as follows:
Subordination Agreements of above-mentioned royalty claimants.

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Uranium and Selenium The work to be performed is described in Exhibit "A." The Operator on or before ________ shall commence the work, and on or before October 31, 1956 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall [redacted]r have completed the work [redacted] except as otherwise provided with respect to Stage II. See Article 13.

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $15,900.00
The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $11,925.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; b[redacted] See Article 13.

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

*Subcategory (c)—Labor.*

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9. **See Article 13.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—

(a) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work except as otherwise provided in Exhibit 'A' with respect to Stage II."

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

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

(d) That part of the last sentence in the first paragraph of Article 6(a) commencing af the semicolon, is deleted.

(e) In the last sentence of Article 6(c), the words "Article 8" are substituted for th words "Article 9."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O. Mitchell Dorr

Administrator, Defense Minerals
Exploration Administration

SHAWANO DEVELOPMENT CORPORATION
(Operator)

By .....

.....

Indrig 7/13/56
Alunya
Appd Sol. Off.

Ching
Ellis
Chandler
Fleming

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

.....

Selfridge

[ CORPORATE SEAL ]

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

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMEA-4194

ANNEX I

The land referred to in Article 2 of the Contract consists of 47 contiguous unpatented lode mining claims situate in secs. 3, 4, and 5, T. 12 N., R. 92 W., and secs. 32, 33, and 34, T. 13 N., R. 92 W., 6th P.M. and B., Carbon County, Wyoming. The land is shown on the map entitled "Figure 5 -- Location of Drill Holes for Exploration Project (Revised) DMEA-4194," attached hereto and made a part hereof.

The notices of location of the claims are filed for record in the Office of the County Clerk of Carbon County at Rawlins, Wyoming, as follows:

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Poison Basin No. 5 | November 5, 1954 | 339 | 97 |
| Poison Basin No. 6 | November 5, 1954 | 339 | 98 |
| Poison Basin No. 7 | November 5, 1954 | 339 | 99 |
| Poison Basin No. 8 | November 5, 1954 | 339 | 100 |
| Poison Basin No. 9 | November 5, 1954 | 339 | 101 |
| Poison Basin No. 10 | November 5, 1954 | 339 | 102 |
| Poison Basin No. 11 | November 5, 1954 | 339 | 103 |
| Poison Basin No. 12 | November 5, 1954 | 339 | 104 |
| Poison Basin No. 13 | November 5, 1954 | 339 | 105 |
| North Slope No. 8 | November 5, 1954 | 339 | 107 |
| North Slope No. 8W | November 5, 1954 | 339 | 111 |
| North Slope No. 9 | November 5, 1954 | 339 | 109 |
| North Slope No. 9W | November 5, 1954 | 339 | 113 |
| Hope No. 3 | November 5, 1954 | 339 | 117 |
| Hope No. 4 | November 5, 1954 | 339 | 118 |
| Hope No. 5 | November 5, 1954 | 339 | 119 |
| Hope No. 6 | November 5, 1954 | 339 | 120 |
| Hope No. 7 | November 5, 1954 | 339 | 121 |
| Hope No. 14 | November 5, 1954 | 339 | 127 |
| Matt No. 1 | November 5, 1954 | 339 | 129 |
| Matt No. 2 | November 5, 1954 | 339 | 131 |
| Matt No. 3 | November 5, 1954 | 339 | 133 |
| Matt No. 4 | November 5, 1954 | 339 | 135 |
| Matt No. 5 | November 5, 1954 | 339 | 137 |
| Matt No. 6 | November 5, 1954 | 339 | 139 |

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Leah No. 19 | November 17, 1954 | 339 | 384 |
| Leah No. 20 | November 17, 1954 | 339 | 386 |
| Leah No. 21 | November 17, 1954 | 339 | 388 |
| Leah No. 22 | November 17, 1954 | 339 | 390 |
| Jo No. 10 | November 17, 1954 | 339 | 532 |
| Jo No. 11 | November 17, 1954 | 339 | 533 |
| Jo No. 12 | November 17, 1954 | 339 | 534 |
| Jo No. 13 | November 17, 1954 | 339 | 535 |
| Jo No. 14 | November 17, 1954 | 339 | 536 |
| Jo No. 15 | November 17, 1954 | 339 | 537 |
| Jo No. 16 | November 17, 1954 | 339 | 538 |
| Jo No. 17 | November 17, 1954 | 339 | 539 |
| Jo No. 18 | November 17, 1954 | 339 | 540 |
| Jo No. 21 | November 17, 1954 | 339 | 541 |
| Jo No. 22 | November 17, 1954 | 339 | 542 |
| Jo No. 23 | November 17, 1954 | 339 | 543 |
| Jo No. 24 | November 17, 1954 | 339 | 544 |
| Jo No. 25 | November 17, 1954 | 339 | 545 |
| Jo No. 26 | November 17, 1954 | 339 | 547 |
| Jo No. 27 (Poison Wash No. 5) | November 5, 1954 | 339 | 143 |
| Jo No. 28 | November 17, 1954 | 339 | 548 |
| Jo No. 29 | November 17, 1954 | 339 | 549 |

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMSA-4194

## EXHIBIT "A"

## Description of the Work

### General Provisions

The work consists of exploration by rotary non-core drilling to test the uranium-selenium-bearing sandstone of the Browns Park formation of Miocene age. The location of the work is indicated on the attached map (Figure 5) referred to in Annex I.

All holes shall be drilled approximately 105 feet deep and have a minimum diameter of 2½ inches. Drilling is expected to be by both dry and wet methods. In dry-drilling, cuttings shall be collected with a Duclone sample collector or equivalent unit. In wet drilling, adequate facilities shall be provided for collecting all the cuttings. In either case, samples shall be taken at 2-foot intervals and checked for radioactivity. All samples indicating significant mineralization shall be analyzed chemically for uranium, and for selenium. The Operator may also make qualitative field tests wherever indications appear favorable for selenium, and samples indicating the presence of selenium shall be analyzed quantitatively. A portion of all samples taken shall be properly labeled and stored for inspection and disposition by the Government.

All drill holes shall be logged geologically and probed radiometrically and the record of such logging and probing, together with certified copies of all assay certificates, shall be submitted with the Operator's monthly progress reports.

All bulldozing shall be done with a D-7 bulldozer or equivalent unit.

The project work shall be supervised at all times by a competent mining engineer or geologist, who shall devote full time to the project.

The location, direction, inclination, and extent of all project work are subject to the approval of the Government.

The work is divided into two stages as hereinafter described. The Operator shall complete Stage I, and shall perform as much of the Stage II work as the Government approves in writing in advance.

Stage I

The work in Stage I is to be performed in five separate areas as indicated on the map (Figure 5) The pattern and spacing of the holes in each area shall follow as closely as possible those shown on the map but no hole shall be drilled closer than 50 feet to any existing drill hole Access roads and drill sites shall be prepared by bulldozer as required A total of 55 holes aggregating not more than 5,775 feet is divided as follows:

In Area 1, 3 holes shall be drilled approximately 600 feet apart, aggregating approximately 315 feet.

In Area 2, 5 holes shall be drilled on 150-foot centers, aggregating approximately 525 feet.

In Area 3, 21 holes shall be drilled on 200-foot centers, aggregating approximately 2,205 feet.

In Area 4, 9 holes shall be drilled on 200-foot centers, aggregating approximately 945 feet.

In Area 5, 17 holes shall be drilled on 500-foot centers east-west and 600-foot centers north-south, aggregating approximately 1,785 feet.

Stage II

Prepare drill sites and drill not more than 34 holes aggregating not more than 3,570 feet as offsets to Stage I holes showing significant mineralization. Stage II holes shall be drilled at least 75 feet from any previously drilled hole.

## Estimated Cost of the Project

Stage I

Actual Costs

Category (1) Independent Contracts

| | | |
|---|---|---|
| 3,850 feet dry non-core drilling @ $1.00/ft. | $3,850.00 | |
| 1,925 feet wet non-core drilling @ $1.75/ft. | 3,368.75 | |
| 70 hours bulldozing @ $10.00/hr. | 700.00 | |
| Categories (2) through (7) None | - | $7,918.75 |

Fixed Unit Costs (See Article 13)

| | |
|---|---|
| Incidental allowance for each foot of non-core drilling completed, 5,775 feet @ $0.23/ft. | $1,328.25 |

| | | |
|---|---|---|
| 50 Chemical analyses for uranium @ $3.50 each | $ 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | $1,863.25 |
| Estimated Total Cost of Stage I | | $9,782.00 |

**Stage II**

**Actual Costs**

Category (1) Independent Contracts

| | | |
|---|---|---|
| 2,380 feet dry non-core drilling @ $1.00/ft. | $2,380.00 | |
| 1,190 feet wet non-core drilling @ $1.75/ft. | 2,082.50 | |
| 30 hours bulldozing @ $10.00/hr. | 300.00 | |
| Categories (2) through (7) None | - | 4,762.50 |

**Fixed Unit Costs** (See Article 13)

| | | |
|---|---|---|
| Incidental allowance for each foot of non-core drilling completed, 3,570 feet @ $0.23/ft. | $ 821.10 | |
| 50 Chemical analyses for uranium @ $3.50 each | 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | 1,356.10 |
| Estimated Total Cost of Stage II | | $6,118.60 |

**S U M M A R Y**

| | |
|---|---|
| Estimated Total Cost of Stage I | $9,782.00 |
| Estimated Total Cost of Stage II | 6,118.60 |
| Estimated Total Cost of the Project (rounded) | $15,900.00 |
| Government Participation @ 75% | $11,925.00 |

Finance Office Copy

MF-200
(Revised June 1954)

Docket No. DMEA 4194

Commodity Uranium and Selenium

Contract No. Idm-E 968

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

## EXPLORATION PROJECT CONTRACT[1]

It is agreed this JUL 19 1956 day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Shawmut Development Corporation, a Florida Corporation, whose mailing address is 430 Park Avenue New York, New York, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and Map (Figure 5)

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

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

(b) The Operator represents and undertakes that:

(1) The Operator is the[4] owner of[5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of an[6] assignment, [7] recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: Royalty claims of LeRoy Benson, Matt Weber, Carle Jebbens, Aubrey R. Stent n, Earl C. Beeler, Sylvia Beeler and F. S. Webber

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

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

of the land (lessor, seller, optionor, etc.) are attached, as follows: Subordination agreements of above mentioned royalty claimants

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Uranium and Vanadium The work to be performed is described in Exhibit "A." The Operator on or before shall commence the work, and on or before October 3 [illegible] (unless the Operator's obligation to prosecute the work is terminated—see Article 10), shall either have completed the work [illegible] allowable costs (see Article 5) in a sum not less than the estimated total allowable cost set forth in Exhibit "A." [illegible] except as otherwise provided with respect to Stage II. See Article 13.

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $[illegible] The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $1,925.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; [redacted]. See Article 3.

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

*Subcategory (c)—Labor.*

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9. See Article 3.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—

(a) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work except as otherwise provided in Exhibit 'A' with respect to Stage II."

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

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

(d) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon, is deleted.

(e) In the last sentence of Article 6(c), the words "Article 8" are substituted for the words "Article 9."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O M Mendoy

Administrator, Defense Minerals
Exploration Administration

SHAWANO DEVELOPMENT CORPORATION
(Operator)

By .....

.....

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

.....

[ CORPORATE SEAL ]

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

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. IMEA-4194

## ANNEX I

The land referred to in Article 2 of the Contract consists of 47 contiguous unpatented lode mining claims situate in secs. 3, 4, and 5 T. 12 N., R. 92 W., and secs. 32, 33, and 34 T. 13 N. R. 92 W., 6th P.M. and B., Carbon County Wyoming. The land is shown on the map entitled "Figure 5 -- Location of Drill Holes for Exploration Project (Revised) IMEA-4194," attached hereto and made a part hereof.

The notices of location of the claims are filed for record in the Office of the County Clerk of Carbon County at Rawlins, Wyoming, as follows:

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Poison Basin No. 5 | November 5, 1954 | 339 | 97 |
| Poison Basin No. 6 | November 5, 1954 | 339 | 98 |
| Poison Basin No. 7 | November 5, 1954 | 339 | 99 |
| Poison Basin No. 8 | November 5, 1954 | 339 | 100 |
| Poison Basin No. 9 | November 5, 1954 | 339 | 101 |
| Poison Basin No. 10 | November 5, 1954 | 339 | 102 |
| Poison Basin No. 11 | November 5, 1954 | 339 | 103 |
| Poison Basin No. 12 | November 5, 1954 | 339 | 104 |
| Poison Basin No. 13 | November 5, 1954 | 339 | 105 |
| North Slope No. 8 | November 5, 1954 | 339 | 107 |
| North Slope No. 8W | November 5, 1954 | 339 | 111 |
| North Slope No. 9 | November 5, 1954 | 339 | 109 |
| North Slope No. 9W | November 5, 1954 | 339 | 113 |
| Hope No. 3 | November 5, 1954 | 339 | 117 |
| Hope No. 4 | November 5, 1954 | 339 | 118 |
| Hope No. 5 | November 5, 1954 | 339 | 119 |
| Hope No. 6 | November 5, 1954 | 339 | 120 |
| Hope No. 7 | November 5, 1954 | 339 | 121 |
| Hope No. 14 | November 5, 1954 | 339 | 127 |
| Matt No. 1 | November 5, 1954 | 339 | 129 |
| Matt No. 2 | November 5, 1954 | 339 | 131 |
| Matt No. 3 | November 5, 1954 | 339 | 133 |
| Matt No. 4 | November 5, 1954 | 339 | 135 |
| Matt No. 5 | November 5, 1954 | 339 | 137 |
| Matt No. 6 | November 5, 1954 | 339 | 139 |

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Leah No. 19 | November 17, 1954 | 339 | 384 |
| Leah No. 20 | November 17, 1954 | 339 | 386 |
| Leah No. 21 | November 17, 1954 | 339 | 388 |
| Leah No. 22 | November 17, 1954 | 339 | 390 |
| Jo No. 10 | November 17, 1954 | 339 | 532 |
| Jo No. 11 | November 17, 1954 | 339 | 533 |
| Jo No. 12 | November 17, 1954 | 339 | 534 |
| Jo No. 13 | November 17, 1954 | 339 | 535 |
| Jo No. 14 | November 17, 1954 | 339 | 536 |
| Jo No. 15 | November 17, 1954 | 339 | 537 |
| Jo No. 16 | November 17, 1954 | 339 | 538 |
| Jo No. 17 | November 17, 1954 | 339 | 539 |
| Jo No. 18 | November 17, 1954 | 339 | 540 |
| Jo No. 21 | November 17, 1954 | 339 | 541 |
| Jo No. 22 | November 17, 1954 | 339 | 542 |
| Jo No. 23 | November 17, 1954 | 339 | 543 |
| Jo No. 24 | November 17, 1954 | 339 | 544 |
| Jo No. 25 | November 17, 1954 | 339 | 545 |
| Jo No. 26 | November 17, 1954 | 339 | 547 |
| Jo No. 27 (Poison Wash No. 5) | November 5, 1954 | 339 | 145 |
| Jo No. 28 | November 17, 1954 | 339 | 548 |
| Jo No. 29 | November 17, 1954 | 339 | 549 |

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMSA-4194

## EXHIBIT "A"

## Description of the Work

### General Provisions

The work consists of exploration by rotary non-core drilling to test the uranium-selenium-bearing sandstone of the Browns Park formation of Miocene age. The location of the work is indicated on the attached map (Figure 5) referred to in Annex I.

All holes shall be drilled approximately 105 feet deep and have a minimum diameter of 2½ inches. Drilling is expected to be by both dry and wet methods. In dry drilling, cuttings shall be collected with a Duslone sample collector or equivalent unit. In wet drilling, adequate facilities shall be provided for collecting all the cuttings. In either case, samples shall be taken at 2-foot intervals and checked for radioactivity. All samples indicating significant mineralization shall be analyzed chemically for uranium, and for selenium. The Operator may also make quantitative field tests wherever indications appear favorable for selenium, and samples indicating the presence of selenium shall be analyzed quantitatively. A portion of all samples taken shall be properly labeled and stored for inspection and disposition by the Government.

All drill holes shall be logged geologically and probed radiometrically and the record of such logging and probing, together with certified copies of all assay certificates, shall be submitted with the Operator's monthly progress reports.

All bulldozing shall be done with a D-7 bulldozer or equivalent unit.

The project work shall be supervised at all times by a competent mining engineer or geologist, who shall devote full time to the project.

The location, direction, inclination, and extent of all project work are subject to the approval of the Government.

The work is divided into two stages as hereinafter described. The Operator shall complete Stage I, and shall perform as much of the Stage II work as the Government approves in writing in advance.

**Stage I**

The work in Stage I is to be performed in five separate areas as indicated on the map (Figure 5). The pattern and spacing of the holes in each area shall follow as closely as possible those shown on the map, but no hole shall be drilled closer than 50 feet to any existing drill hole. Access roads and drill sites shall be prepared by bulldozer as required. A total of 55 holes aggregating not more than 5,775 feet is divided as follows:

In Area 1, 3 holes shall be drilled approximately 600 feet apart, aggregating approximately 345 feet.

In Area 2, 5 holes shall be drilled on 150-foot centers, aggregating approximately 525 feet.

In Area 3, 21 holes shall be drilled on 200-foot centers, aggregating approximately 2,205 feet.

In Area 4, 9 holes shall be drilled on 200 foot centers, aggregating approximately 945 feet.

In Area 5, 17 holes shall be drilled on 500 foot centers east-west and 600 foot centers north-south, aggregating approximately 1,785 feet.

**Stage II**

Prepare drill sites and drill not more than 34 holes aggregating not more than 3,570 feet as offsets to Stage I holes showing significant mineralization. Stage II holes shall be drilled at least 75 feet from any previously drilled hole.

## Estimated Cost of the Project

**Stage I**

**Actual Costs**

Category (1) **Independent Contracts**

| | | |
|---|---|---|
| 3,850 feet dry non-core drilling @ $1.00/ft. | $3,850.00 | |
| 1,985 feet wet non-core drilling @ $1.75/ft. | 3,368.75 | |
| 70 hours bulldozing @ $10.00/hr. | 700.00 | |
| Categories (2) through (7) None | _____ | $7,918.75 |

**Fixed Unit Costs** (See Article 13)

| | |
|---|---|
| Incidental allowance for each foot of non-core drilling completed, 5,775 feet @ $0.23/ft. | $1,328.25 |

| | | |
|---|---|---|
| 50 Chemical analyses for uranium @ $3.50 each | $ 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | $1,861.85 |
| Estimated Total Cost of Stage I | | $9,782.00 |

**Stage II**

**Actual Costs**

Category (1) **Independent Contracts**

| | | |
|---|---|---|
| 2,380 feet dry non-core drilling @ $1.00/ft. | $2,380.00 | |
| 1,190 feet wet non-core drilling @ $1.75/ft. | 2,082.50 | |
| 30 hours bulldozing @ $10.00/hr. | 300.00 | |
| Categories (2) through (7) None | — | 4,762.50 |

**Fixed Unit Costs** (See Article 13)

| | | |
|---|---|---|
| Incidental allowance for each foot of non-core drilling completed, 3,570 feet @ $0.23/ft. | $ 821.10 | |
| 50 Chemical analyses for uranium @ $3.50 each | 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | 1,356.10 |
| Estimated Total Cost of Stage II | | $6,118.60 |

**S U M M A R Y**

| | |
|---|---|
| Estimated Total Cost of Stage I | $9,782.00 |
| Estimated Total Cost of Stage II | 6,118.60 |
| Estimated Total Cost of the Project (rounded) | $15,900.00 |
| Government Participation @ 75% | $11,925.00 |

DMEA
Date Rec'd.
JUL 23 1956
BUREAU OF MINES
Denver, Colorado

Field Team Copy

MF-200
(Revised June 1954)

Docket No. DMEA 4194

Commodity Uranium [illegible]

Contract No. Idm-E 968

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

## EXPLORATION PROJECT CONTRACT[1]

It is agreed this ..... day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Shawen Development Corporation, a Florida Corporation,

whose mailing address is 3[illegible] Park Avenue
New York, New York,

hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and None (Figure 5)

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

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

(b) The Operator represents and undertakes that:

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

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: Royalty claims of Eloy Benson, Matt Weber, Carl Jobberg, Aubrey R. Stark, Earl C. Beeler, Sylvia Beeler and [illegible] Weber

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

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

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

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of ..... The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before ..... (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~[illegible]~~ ~~allowable costs (see Article 6) in a sum not less than the estimated [illegible]~~ ~~Exhibit A.~~ except as otherwise provided with respect to Stage II (see Article 3)

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

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

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

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

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

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; b[redacted]. See Article 3.

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

*Subcategory (c)—Labor.*

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9. See Article 3.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—

(a) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work except as otherwise provided in Exhibit 'A' with respect to Stage II."

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

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

(d) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon, is deleted.

(e) In the last sentence of Article 6(c), the words "Article 8" are substituted for the words "Article 9."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O. P. Mitteudorf

Administrator, Defense Minerals Exploration Administration

CHAVANO DEVELOPMENT CORPORATION
(Operator)

By .....

.....

---

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

.....

[ CORPORATE SEAL ]

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

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMEA-4194

## ANNEX I

The land referred to in Article 2 of the Contract consists of 47 contiguous unpatented lode mining claims situate in secs. 3, 4, and 5, T. 12 N., R. 92 W., and secs. 32, 33, and 34, T. 13 N., R. 92 W., 6th P.M. and B., Carbon County, Wyoming. The land is shown on the map entitled "Figure 5 -- Location of Drill Holes for Exploration Project (Revised) DMEA-4194," attached hereto and made a part hereof.

The notices of location of the claims are filed for record in the Office of the County Clerk of Carbon County at Rawlins, Wyoming, as follows:

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Poison Basin No. 5 | November 5, 1954 | 33[illegible] | 97 |
| Poison Basin No. 6 | November 5, 1954 | 339 | [illegible]8 |
| Poison Basin No. 7 | November 5, 1954 | 339 | [illegible] |
| Poison Basin No. 8 | November 5, 1954 | 33[illegible] | 100 |
| Poison Basin No. 9 | November 5, 1954 | 339 | 101 |
| Poison Basin No. 10 | November 5, 1954 | 339 | 102 |
| Poison Basin No. 11 | November 5, 1954 | 33[illegible] | 103 |
| Poison Basin No. 12 | November 5, 1954 | 339 | 104 |
| Poison Basin No. 13 | November 5, 1954 | 33[illegible] | 105 |
| North Slope No. 8 | November 5, 1954 | 339 | 107 |
| North Slope No. 8W | November 5, 1954 | 339 | 111 |
| North Slope No. 9 | November 5, 1954 | 339 | 10[illegible] |
| North Slope No. 9W | November 5, 1954 | 33[illegible] | 113 |
| Hope No. 3 | November 5, 1954 | 339 | 117 |
| Hope No. 4 | November 5, 1954 | 339 | 118 |
| Hope No. 5 | November 5, 1954 | 339 | 119 |
| Hope No. 6 | November 5, 1954 | 33[illegible] | 120 |
| Hope No. 7 | November 5, 1954 | 33[illegible] | 121 |
| Hope No. 14 | November 5, 1954 | 339 | 127 |
| Matt No. 1 | November 5, 1954 | 33[illegible] | 12[illegible] |
| Matt No. 2 | November 5, 1954 | 33[illegible] | 131 |
| Matt No. 3 | November 5, 1954 | 33[illegible] | 133 |
| Matt No. 4 | November 5, 1954 | 339 | 135 |
| Matt No. 5 | November 5, 1954 | 33[illegible] | 137 |
| Matt No. 6 | November 5, 1954 | 33[illegible] | 139 |

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Leah No. 19 | November 17, 1954 | 339 | 384 |
| Leah No. 20 | November 17, 1954 | 339 | 386 |
| Leah No. 21 | November 17, 1954 | 339 | 388 |
| Leah No. 22 | November 17, 1954 | 339 | 390 |
| Jo No. 10 | November 17, 1954 | 339 | 532 |
| Jo No. 11 | November 17, 1954 | 339 | 533 |
| Jo No. 12 | November 17, 1954 | 339 | 534 |
| Jo No. 13 | November 17, 1954 | 339 | 535 |
| Jo No. 14 | November 17, 1954 | 339 | 536 |
| Jo No. 15 | November 17, 1954 | 339 | 537 |
| Jo No. 16 | November 17, 1954 | 339 | 538 |
| Jo No. 17 | November 17, 1954 | 339 | 539 |
| Jo No. 18 | November 17, 1954 | 339 | 540 |
| Jo No. 21 | November 17, 1954 | 339 | 541 |
| Jo No. 22 | November 17, 1954 | 339 | 542 |
| Jo No. 23 | November 17, 1954 | 339 | 543 |
| Jo No. 24 | November 17, 1954 | 339 | 544 |
| Jo No. 25 | November 17, 1954 | 339 | 545 |
| Jo No. 26 | November 17, 1954 | 339 | 547 |
| Jo No. 27 (Poison Wash No. 5) | November 5, 1954 | 339 | 145 |
| Jo No. 28 | November 17, 1954 | 339 | 548 |
| Jo No. 29 | November 17, 1954 | 339 | 549 |

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMSA-4194

## EXHIBIT "A"

## Description of the Work

### General Provisions

The work consists of exploration by rotary non-core drilling to test the uranium selenium-bearing sandstone of the Browns Park formation of Miocene age. The location of the work is indicated on the attached map (Figure 5) referred to in Annex I.

All holes shall be drilled approximately 105 feet deep and have a minimum diameter of 2½ inches. Drilling is expected to be by both dry and wet methods. In dry drilling, cuttings shall be collected with a Denlone sample collector or equivalent unit. In wet drilling, adequate facilities shall be provided for collecting all the cuttings. In either case, samples shall be taken at 2-foot intervals and checked for radioactivity. All samples indicating significant mineralization shall be analyzed chemically for uranium, and for selenium. The Operator may also make qualitative field tests wherever indications appear favorable for selenium, and samples indicating the presence of selenium shall be analyzed quantitatively. A portion of all samples taken shall be properly labeled and stored for inspection and disposition by the Government.

All drill holes shall be logged geologically and probed radiometrically and the record of such logging and probing, together with certified copies of all assay certificates, shall be submitted with the Operator's monthly progress reports.

All bulldozing shall be done with a D 7 bulldozer or equivalent unit.

The project work shall be supervised at all times by a competent mining engineer or geologist, who shall devote full time to the project.

The location, direction, inclination, and extent of all project work are subject to the approval of the Government.

The work is divided into two stages as hereinafter described. The Operator shall complete Stage I, and shall perform as much of the Stage II work as the Government approves in writing in advance.

## Stage I

The work in Stage I is to be performed in five separate areas as indicated on the map (Figure 5). The pattern and spacing of the holes in each area shall follow as closely as possible those shown on the map, but no hole shall be drilled closer than 5[illegible] feet to any existing drill hole. Access roads and drill sites shall be prepared by bulldozer as required. A total of 55 holes aggregating not more than 5,775 feet is divided as follows:

In Area 1, 3 holes shall be drilled approximately 60[illegible] feet apart, aggregating approximately 3[illegible]5 feet.

In Area 2, 5 holes shall be drilled on 150-foot centers, aggregating approximately 525 feet.

In Area 3, 21 holes shall be drilled on 200-foot centers, aggregating approximately 2,205 feet.

In Area 4, 9 holes shall be drilled on 200 foot centers, aggregating approximately 945 feet.

In Area 5, 17 holes shall be drilled on 500 foot centers east-west and 600 foot centers north-south, aggregating approximately 1,785 feet.

## Stage II

Prepare drill sites and drill not more than 34 holes aggregating not more than 3,570 feet as offsets to Stage I holes showing significant mineralization. Stage II holes shall be drilled at least 75 feet from any previously drilled hole.

## Estimated Cost of the Project

### Stage I

**Actual Costs**

Category (1) Independent Contracts

| | | |
|---|---|---|
| 3,850 feet dry non-core drilling @ $1.0[illegible]/ft. | $3,850.00 | |
| 1,925 feet wet non-core drilling @ $1.75/ft. | 3,368.75 | |
| 70 hours bulldozing @ $10.00/hr | 700.00 | |
| Categories (2) through (7) None | | $7,918.75 |

**Fixed Unit Costs** (See Article 13)

| | |
|---|---|
| Incidental allowance for each foot of non-core drilling completed, 5,775 feet @ $0.23/ft. | $1,328.25 |

| | | |
|---|---|---|
| 50 Chemical analyses for uranium @ $3.50 each | $ 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | $1,863.25 |
| Estimated Total Cost of Stage I | | $9,782.00 |

**Stage II**

**Actual Costs**

Category (1) **Independent Contracts**

| | | |
|---|---|---|
| 2,380 feet dry non-core drilling @ $1.00/ft. | $2,380.00 | |
| 1,190 feet wet non-core drilling @ $1.75/ft. | 2,082.50 | |
| 30 hours bulldozing @ $10.00/hr. | 300.00 | |
| Categories (2) through (7) None | - | 4,762.50 |

**Fixed Unit Costs** (See Article 13)

| | | |
|---|---|---|
| Incidental allowance for each foot of non-core drilling completed, 3,570 feet @ $0.23/ft. | $ 821.10 | |
| 50 Chemical analyses for uranium @ $3.50 each | 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | 1,356.10 |
| Estimated Total Cost of Stage II | | $6,118.60 |

**S U M M A R Y**

| | |
|---|---|
| Estimated Total Cost of Stage I | $9,782.00 |
| Estimated Total Cost of Stage II | 6,118.60 |
| Estimated Total Cost of the Project (rounded) | $15,900.00 |
| Government Participation @ 75% | $11,925.00 |

Operator's Copy

MF-200
(Revised June 1954)

Docket No. DMEA 4194

Commodity Uranium and Selenium

Contract No. Idm-E 968

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

## EXPLORATION PROJECT CONTRACT[1]

It is agreed this JUL 1 9 1956 day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Shawano Development Corporation, a Florida Corporation, whose mailing address is 430 Park Avenue New York, New York, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and Map (Figure 5)

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

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

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] owner of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of an[6] assignment, [7] recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: Royalty claims of LeRoy Benson, Matt Weber, Carle Jebbens, Aubrey R. Stanton, Earl C. Beeler, Sylvia Beeler and P. S. Webber

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

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

of the land (lessor, seller, optionor, etc.), are attached, as follows: Subordination Agreements of above-mentioned royalty claimants.

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Uranium and Selenium. The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before October 31, 1956 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~exclusive of allowable costs (see Article 9) in a sum not less than the estimated total allowable costs for the~~ except as otherwise provided with respect to Stage II. See Article 13.

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $15,900.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $11,925.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; [redacted] See Article 13.

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

*Subcategory (c)—Labor.*

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9. **See Article 13.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—

(a) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work except as otherwise provided in Exhibit 'A' with respect to Stage II."

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

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

(d) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon, is deleted.

(e) In the last sentence of Article 6(c), the words "Article 8" are substituted for the words "Article 9."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O. P. Mitchendorf

Administrator, Defense Minerals
Exploration Administration

SHAWANO DEVELOPMENT CORPORATION
(Operator)

By .....

.....

---

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

.....

[ CORPORATE SEAL ]

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

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMEA-4194

## ANNEX I

The land referred to in Article 2 of the Contract consists of 47 contiguous unpatented lode mining claims situate in secs. 3, 4, and 5, T. 12 N., R. 92 W., and secs. 32, 33, and 34, T. 13 N., R. 92 W., 6th P.M. and B., Carbon County, Wyoming. The land is shown on the map entitled "Figure 5 -- Location of Drill Holes for Exploration Project (Revised) DMEA-4194," attached hereto and made a part hereof.

The notices of location of the claims are filed for record in the Office of the County Clerk of Carbon County at Rawlins, Wyoming, as follows:

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Poison Basin No. 5 | November 5, 1954 | 339 | 97 |
| Poison Basin No. 6 | November 5, 1954 | 339 | 98 |
| Poison Basin No. 7 | November 5, 1954 | 339 | 99 |
| Poison Basin No. 8 | November 5, 1954 | 339 | 100 |
| Poison Basin No. 9 | November 5, 1954 | 339 | 101 |
| Poison Basin No. 10 | November 5, 1954 | 339 | 102 |
| Poison Basin No. 11 | November 5, 1954 | 339 | 103 |
| Poison Basin No. 12 | November 5, 1954 | 339 | 104 |
| Poison Basin No. 13 | November 5, 1954 | 339 | 105 |
| North Slope No. 8 | November 5, 1954 | 339 | 107 |
| North Slope No. 8W | November 5, 1954 | 339 | 111 |
| North Slope No. 9 | November 5, 1954 | 339 | 109 |
| North Slope No. 9W | November 5, 1954 | 339 | 113 |
| Hope No. 3 | November 5, 1954 | 339 | 117 |
| Hope No. 4 | November 5, 1954 | 339 | 118 |
| Hope No. 5 | November 5, 1954 | 339 | 119 |
| Hope No. 6 | November 5, 1954 | 339 | 120 |
| Hope No. 7 | November 5, 1954 | 339 | 121 |
| Hope No. 14 | November 5, 1954 | 339 | 127 |
| Matt No. 1 | November 5, 1954 | 339 | 129 |
| Matt No. 2 | November 5, 1954 | 339 | 131 |
| Matt No. 3 | November 5, 1954 | 339 | 133 |
| Matt No. 4 | November 5, 1954 | 339 | 135 |
| Matt No. 5 | November 5, 1954 | 339 | 137 |
| Matt No. 6 | November 5, 1954 | 339 | 139 |

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Leah No. 19 | November 17, 1954 | 339 | 384 |
| Leah No. 20 | November 17, 1954 | 339 | 386 |
| Leah No. 21 | November 17, 1954 | 339 | 388 |
| Leah No. 22 | November 17, 1954 | 339 | 390 |
| Jo No. 10 | November 17, 1954 | 339 | 532 |
| Jo No. 11 | November 17, 1954 | 339 | 533 |
| Jo No. 12 | November 17, 1954 | 339 | 534 |
| Jo No. 13 | November 17, 1954 | 339 | 535 |
| Jo No. 14 | November 17, 1954 | 339 | 536 |
| Jo No. 15 | November 17, 1954 | 339 | 537 |
| Jo No. 16 | November 17, 1954 | 339 | 538 |
| Jo No. 17 | November 17, 1954 | 339 | 539 |
| Jo No. 18 | November 17, 1954 | 339 | 540 |
| Jo No. 21 | November 17, 1954 | 339 | 541 |
| Jo No. 22 | November 17, 1954 | 339 | 542 |
| Jo No. 23 | November 17, 1954 | 339 | 543 |
| Jo No. 24 | November 17, 1954 | 339 | 544 |
| Jo No. 25 | November 17, 1954 | 339 | 545 |
| Jo No. 26 | November 17, 1954 | 339 | 547 |
| Jo No. 27 (Poison Wash No. 5) | November 5, 1954 | 339 | 145 |
| Jo No. 28 | November 17, 1954 | 339 | 548 |
| Jo No. 29 | November 17, 1954 | 339 | 549 |

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMEA-4194

## EXHIBIT "A"

### Description of the Work

General Provisions

The work consists of exploration by rotary non-core drilling to test the uranium-selenium-bearing sandstone of the Browns Park formation of Miocene age. The location of the work is indicated on the attached map (Figure 5) referred to in Annex I.

All holes shall be drilled approximately 105 feet deep and have a minimum diameter of 2½ inches. Drilling is expected to be by both dry and wet methods. In dry-drilling, cuttings shall be collected with a Duclone sample collector or equivalent unit. In wet drilling, adequate facilities shall be provided for collecting all the cuttings. In either case, samples shall be taken at 2-foot intervals and checked for radioactivity. All samples indicating significant mineralization shall be analyzed chemically for uranium, and for selenium. The Operator may also make qualitative field tests wherever indications appear favorable for selenium, and samples indicating the presence of selenium shall be analyzed quantitatively. A portion of all samples taken shall be properly labeled and stored for inspection and disposition by the Government.

All drill holes shall be logged geologically and probed radiometrically and the record of such logging and probing, together with certified copies of all assay certificates, shall be submitted with the Operator's monthly progress reports.

All bulldozing shall be done with a D-7 bulldozer or equivalent unit.

The project work shall be supervised at all times by a competent mining engineer or geologist, who shall devote full time to the project.

The location, direction, inclination, and extent of all project work are subject to the approval of the Government.

The work is divided into two stages as hereinafter described. The Operator shall complete Stage I, and shall perform as much of the Stage II work as the Government approves in writing in advance.

Stage I

The work in Stage I is to be performed in five separate areas as indicated on the map (Figure 5) The pattern and spacing of the holes in each area shall follow as closely as possible those shown on the map but no hole shall be drilled closer than 50 feet to any existing drill hole Access roads and drill sites shall be prepared by bulldozer as required A total of 55 holes aggregating not more than 5,775 feet is divided as follows:

In Area 1, 3 holes shall be drilled approximately 600 feet apart, aggregating approximately 315 feet.

In Area 2, 5 holes shall be drilled on 150-foot centers, aggregating approximately 525 feet.

In Area 3, 21 holes shall be drilled on 200-foot centers, aggregating approximately 2,205 feet.

In Area 4, 9 holes shall be drilled on 200-foot centers, aggregating approximately 945 feet.

In Area 5, 17 holes shall be drilled on 500-foot centers east-west and 600-foot centers north-south, aggregating approximately 1,785 feet.

Stage II

Prepare drill sites and drill not more than 34 holes aggregating not more than 3,570 feet as offsets to Stage I holes showing significant mineralization. Stage II holes shall be drilled at least 75 feet from any previously drilled hole.

## Estimated Cost of the Project

Stage I

Actual Costs

Category (1) Independent Contracts

| | | |
|---|---|---|
| 3,850 feet dry non-core drilling @ $1.00/ft. | $3,850.00 | |
| 1,925 feet wet non-core drilling @ $1.75/ft. | 3,368.75 | |
| 70 hours bulldozing @ $10.00/hr. | 700.00 | |
| Categories (2) through (7) None | - | $7,918.75 |

Fixed Unit Costs (See Article 13)

| | |
|---|---|
| Incidental allowance for each foot of non-core drilling completed, 5,775 feet @ $0.23/ft. | $1,328.25 |

| | | |
|---|---|---|
| 50 Chemical analyses for uranium @ $3.50 each | $ 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | $1,863.25 |
| Estimated Total Cost of Stage I | | $9,782.00 |

**Stage II**

**Actual Costs**

Category (1) Independent Contracts

| | | |
|---|---|---|
| 2,380 feet dry non-core drilling @ $1.00/ft. | $2,380.00 | |
| 1,190 feet wet non-core drilling @ $1.75/ft. | 2,082.50 | |
| 30 hours bulldozing @ $10.00/hr. | 300.00 | |
| Categories (2) through (7) None | - | 4,762.50 |

**Fixed Unit Costs** (See Article 13)

| | | |
|---|---|---|
| Incidental allowance for each foot of non-core drilling completed, 3,570 feet @ $0.23/ft. | $ 821.10 | |
| 50 Chemical analyses for uranium @ $3.50 each | 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | 1,356.10 |
| Estimated Total Cost of Stage II | | $6,118.60 |

## SUMMARY

| | |
|---|---|
| Estimated Total Cost of Stage I | $9,782.00 |
| Estimated Total Cost of Stage II | 6,118.60 |
| Estimated Total Cost of the Project (rounded) | $15,900.00 |
| Government Participation @ 75% | $11,925.00 |

Extra Copy

MF-200
(Revised June 1954)

Docket No. DMEA 4194

Commodity Uranium and Vanadium

Contract No. Idm-E 968

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

## EXPLORATION PROJECT CONTRACT[1]

It is agreed this JUL 1 9 1956 day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Shawnee Development Corporation, a Florida Corporation,

whose mailing address is 39 Park Avenue New York, New York,

hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and Map (Figure 5)

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

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

(b) The Operator represents and undertakes that:

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

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: Royalty claims of Leroy Benson, Matt Weber, Carl Jeblens, Aubrey R. Stewart, Carl C. Beeler, Sylvia Beeler and [illegible] Webber

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

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

of the land (lessor, seller, optionor, etc.), are attached, as follows: Subordination agreements of above mentioned [illegible] encumbrances

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Uranium and Vanadium. The work to be performed is described in Exhibit "A." The Operator on or before [illegible] shall commence the work, and on or before [illegible] (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall [illegible]er have completed the work [illegible] allowable costs (see Article 6) in a sum not less than the estimated [illegible] Exhibit "A" except as otherwise provided with respect to Stage II. See Article 3

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

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

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

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

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

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; [redacted] See Article 3.

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

*Subcategory (c)—Labor.*

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9. See Article 3

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—

(a) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work except as otherwise provided in Exhibit 'A' with respect to Stage II."

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

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

(d) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon, is deleted.

(e) In the last sentence of Article 6(c), the words "Article 8" are substituted for the words "Article 9."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By S. O. Mittendorf

Administrator, Defense Minerals Exploration Administration

HAWAIIAN DEVELOPMENT CORPORATION
(Operator)

By .....

.....

---

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

.....

[ CORPORATE SEAL ]

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

EXPLORATION PROJECT CONTRACT
SEAWARD DEVELOPMENT CORPORATION
DOCKET NO. DMEA 4194

ANNEX I

The land referred to in Article 2 of the Contract consists of 47 contiguous unpatented lode mining claims situate in secs. 3, 4, and 5 T. 12 N., R. 92 W., and secs. 32, 33, and 34 T. 13 N. R. 92 W., 6th P.M. and B., Carbon County Wyoming. The land is shown on the map entitled "Figure 5 -- Location of Drill Holes for Exploration Project (Revised) DMEA 4194," attached hereto and made a part hereof.

The notices of location of the claims are filed for record in the Office of the County Clerk of Carbon County at Rawlins, Wyoming, as follows:

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Poison Basin No. 5 | November 5, 1954 | 339 | 97 |
| Poison Basin No. 6 | November 5, 1954 | 339 | 98 |
| Poison Basin No. 7 | November 5, 1954 | 339 | 99 |
| Poison Basin No. 8 | November 5, 1954 | 339 | 100 |
| Poison Basin No. 9 | November 5, 1954 | 339 | 101 |
| Poison Basin No. 10 | November 5, 1954 | 339 | 102 |
| Poison Basin No. 11 | November 5, 1954 | 339 | 103 |
| Poison Basin No. 12 | November 5, 1954 | 339 | 104 |
| Poison Basin No. 13 | November 5, 1954 | 339 | 105 |
| North Slope No. 8 | November 5, 1954 | 339 | 107 |
| North Slope No. 8W | November 5, 1954 | 339 | 111 |
| North Slope No. [illegible] | November 5, 1954 | 339 | 109 |
| North Slope No. 9W | November 5, 1954 | 339 | 113 |
| Hope No. 3 | November 5, 1954 | 339 | 117 |
| Hope No. 4 | November 5, 1954 | 339 | 118 |
| Hope No. 5 | November 5, 1954 | 339 | 119 |
| Hope No. 6 | November 5, 1954 | 339 | 120 |
| Hope No. 7 | November 5, 1954 | 339 | 121 |
| Hope No. 14 | November 5, 1954 | 339 | 127 |
| Matt No. 1 | November 5, 1954 | 339 | 129 |
| Matt No. 2 | November 5, 1954 | 339 | 131 |
| Matt No. 3 | November 5, 1954 | 339 | 133 |
| Matt No. 4 | November 5, 1954 | 339 | 135 |
| Matt No. 5 | November 5, 1954 | 339 | 137 |
| Matt No. 6 | November 5, 1954 | 339 | 139 |

| Name of Claim | Date of Recording | Book | Page |
|---|---|---|---|
| Leah No. 19 | November 17, 1954 | 339 | 384 |
| Leah No. 20 | November 17, 1954 | 339 | 386 |
| Leah No. 21 | November 17, 1954 | 339 | 388 |
| Leah No. 22 | November 17, 1954 | 339 | 390 |
| Jo No. 10 | November 17, 1954 | 339 | 532 |
| Jo No. 11 | November 17, 1954 | 339 | 533 |
| Jo No. 12 | November 17, 1954 | 339 | 534 |
| Jo No. 13 | November 17, 1954 | 339 | 535 |
| Jo No. 14 | November 17, 1954 | 339 | 536 |
| Jo No. 15 | November 17, 1954 | 339 | 537 |
| Jo No. 16 | November 17, 1954 | 339 | 538 |
| Jo No. 17 | November 17, 1954 | 339 | 539 |
| Jo No. 18 | November 17, 1954 | 339 | 540 |
| Jo No. 21 | November 17, 1954 | 339 | 541 |
| Jo No. 22 | November 17, 1954 | 339 | 542 |
| Jo No. 23 | November 17, 1954 | 339 | 543 |
| Jo No. 24 | November 17, 1954 | 339 | 544 |
| Jo No. 25 | November 17, 1954 | 339 | 545 |
| Jo No. 26 | November 17, 1954 | 339 | 547 |
| Jo No. 27 (Poison Wash No. 5) | November 5, 1954 | 339 | 145 |
| Jo No. 28 | November 17, 1954 | 339 | 546 |
| Jo No. 2 | November 17, 1954 | 339 | 54[illegible] |

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMSA-4194

## EXHIBIT "A"

## Description of the Work

### General Provisions

The work consists of exploration by rotary non-core drilling to test the uranium selenium bearing sandstone of the Brown Park formation of Miocene age. The location of the work is indicated on the attached map (Figure 5) referred to in Annex I.

All holes shall be drilled approximately 105 feet deep and have a minimum diameter of 2½ inches. Drilling is expected to be by both dry and wet methods. In dry drilling, cuttings shall be collected with a Duclone sample collector or equivalent unit. In wet drilling, adequate facilities shall be provided for collecting all the cuttings. In either case, samples shall be taken at 2-foot intervals and checked for radioactivity. All samples indicating significant mineralization shall be analyzed chemically for uranium, and for selenium. The Operator may also make qualitative field tests wherever indications appear favorable for selenium, and samples indicating the presence of selenium shall be analyzed quantitatively. A portion of all samples taken shall be properly labeled and stored for inspection and disposition by the Government.

All drill holes shall be logged geologically and probed radiometrically and the record of such logging and probing, together with certified copies of all assay certificates, shall be submitted with the Operator's monthly progress reports.

All bulldozing shall be done with a D-7 bulldozer or equivalent unit.

The project work shall be supervised at all times by a competent mining engineer or geologist, who shall devote full time to the project.

The location, direction, inclination, and extent of all project work are subject to the approval of the Government.

The work is divided into two stages as hereinafter described. The Operator shall complete Stage I, and shall perform as much of the Stage II work as the Government approves in writing in advance.

Stage I

The work in Stage I is to be performed in five separate areas as indicated on the map (Figure 5). The pattern and spacing of the holes in each area shall follow as closely as possible those shown on the map, but no hole shall be drilled closer than 50 feet to any existing drill hole. Access roads and drill sites shall be prepared by bulldozer as required. A total of 55 holes aggregating not more than 5,775 feet is divided as follows:

In Area 1, 3 holes shall be drilled approximately 600 feet apart, aggregating approximately 315 feet.

In Area 2, 5 holes shall be drilled on 150-foot centers, aggregating approximately 525 feet.

In Area 3, 21 holes shall be drilled on 200-foot centers, aggregating approximately 2,205 feet.

In Area 4, 9 holes shall be drilled on 200-foot centers, aggregating approximately 945 feet.

In Area 5, 17 holes shall be drilled on 500-foot centers east-west and 600 foot centers north-south, aggregating approximately 1,785 feet.

Stage II

Prepare drill sites and drill not more than 34 holes aggregating not more than 3,570 feet as offsets to Stage I holes showing significant mineralization. Stage II holes shall be drilled at least 75 feet from any previously drilled hole.

Estimated Cost of the Project

Stage I

Actual Costs

Category (1) Independent Contracts

| | | |
|---|---|---|
| 3,850 feet dry non-core drilling @ $[illegible].00/ft. | $3,850.00 | |
| 1,925 feet wet non-core drilling @ $1.75/ft. | 3,368.75 | |
| 70 hours bulldozing @ $10.00/hr. | 700.00 | |
| Categories (2) through (7) None | | $7,918.75 |

Fixed Unit Costs (See Article 13)

| | |
|---|---|
| Incidental allowance for each foot of non-core drilling completed, 5,775 feet @ $0.23/ft. | $1,328.25 |

| | | |
|---|---|---|
| 50 Chemical analyses for uranium @ $3.50 each | 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | $1,863.25 |
| Estimated Total Cost of Stage I | | $9,782.00 |

**Stage II**

**Actual Costs**

Category (1) **Independent Contracts**

| | | |
|---|---|---|
| 2,380 feet dry non-core drilling @ $1.00/ft. | $2,380.00 | |
| 1,190 feet wet non-core drilling @ $1.75/ft. | 2,082.50 | |
| 30 hours bulldozing @ $10.00/hr. | 300.00 | |
| Categories (2) through (7) None | - | 4,762.50 |

**Fixed Unit Costs** (See Article 13)

| | | |
|---|---|---|
| Incidental allowance for each foot of non-core drilling completed, 3,570 feet @ $0.23/ft. | $ 821.10 | |
| 50 Chemical analyses for uranium @ $3.50 each | 175.00 | |
| 60 Chemical analyses for selenium @ $6.00 each | 360.00 | 1,356.10 |
| Estimated Total Cost of Stage II | | $6,118.60 |

**S U M M A R Y**

| | |
|---|---|
| Estimated Total Cost of Stage I | $9,782.00 |
| Estimated Total Cost of Stage II | 6,118.60 |
| Estimated Total Cost of the Project (rounded) | $15,900.00 |
| Government Participation @ 75% | $11,925.00 |

IMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4194

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

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

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

**Left Side**

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

**Right Side**

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

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

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

**Left Side**

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

**Right Side**

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

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

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

PAUL H. KEATING
MINING ENGINEER

Golden, Colo.
May 17, 1956.

RECEIVED
4194
JUN 25 1956
DMEA
Date Rec'd

Re: DMEA Docket 4194 (Uranium).

U.S. Bureau of Mines,
Denver Federal Center,
Denver, Colo.

MAY 22 1956
BUREAU OF MINES
Denver, Colorado

Att: Mr. Chas. Garret
(Northerly end of Bldg. 20, in the area concerned with DMEA applications).

Gentlemen:

The following data applies to the above docket no.:

1. Jo #19 and #20 were included in parts of my report, but not on the formal listing of pertinent claims in this application. This was an error of tabulation, (stenographic).

The area concerned is entirely within the perimeter of the heavily-outlined portion of the maps submitted with the application and report.

2. Re Royalties: ALL "Poison Basin" claims are subject to a 5% royalty, reserved by Le Roy Benson, including Poison Basin Nos. 5 and 6, which were included in the original proposed area for exploration, and Poison Basin Nos. 7-12 inclusive, which were not included in the original area, but which, by recent correspondence are now included.

3. "Poison Wash" No. 5 was re-located on the same ground as "Jo No. 27". "Poison Basin" name and "Poison Wash" name are not the same.

4. There was delivered to Mr. Garret's desk, this afternoon, as much of the data requested as could be obtained up to this time, in addition to the "error" inclusion listed in "1." above. ANY ADDITIONAL DATA required can be obtained from the applicant's Denver office: TO WIT:

"Richard S. Hunt; 1409 Mile-Hi Center; ~~Am-6-0639~~"
AM 6-0636

Very truly yours,

Shawano Dev. Corp. (Applicant)
By Paul H Keating
Paul H. Keating
(

# AMENDED NOTICE OF LOCATION OF MINING CLAIM

(Pursuant to Public Law 585, 83d Congress, Chapter 730, 68. Stat., 708 et seq. Approved August 13, 1954)

RECEIVED JUN 25 1955

KNOW ALL MEN BY THESE PRESENTS THAT:

IRVING PASTERNAK, 1650 California St., Denver, Colorado (claim owner) (and LeRoy Benson, royalty holder, of Baggs, Wyoming)

Pasternak being a, citizen(s) of the United States, over the age of 21 years and residing in the County of Denver, State of Colorado, pursuant to the requirements of Public Law 585 approved August 13, 1954, as described in the caption hereof, owner(s) of a mining claim, as hereinafter described, located subsequent to December 31, 1952 and staked, posted and covered by notice or notices filed in the office of the County Clerk of the County and State hereinafter set forth, with filing information as stated, and located and established by right of discovery, location and notice, pursuant to the revised statutes of the United States, Chapter 2, Title 30, as amended by Public Law 585, and pertinent laws, hereby give(s) notice that the undersigned own(s) and hold(s) a mining claim, of the linear and horizontal measurement hereinafter set forth, of the extent allowed by such statutes and laws, situated in the Baggs (unorganized) Mining District, in the County of Carbon, State of Wyoming, bounded and more particularly described, known as the POISON BASIN NO. 5 Claim and duly referenced to a corner of a public land survey or permanent monument as follows, to-wit:

Beginning at the Southwest Corner thereof, at which this notice is posted, marked and designated therefor;

Thence, Northerly (parallel with nearest North-South Sec. line) 600 feet to the Northwest corner thereof, marked and designated therefor;

Thence, Easterly (parallel with nearest East-West Sec. line) 1500 feet to the Northeast corner thereof, marked and designated therefor;

Thence, Southerly (parallel with nearest North-South Sec. line) 600 feet to the Southeast corner thereof, marked and designated therefor;

Thence, Westerly (parallel with nearest East-West Sec. line) 1500 feet to the Southwest corner thereof, the place of beginning.

TIE: The Southwest corner of the above described tract is West, 360 feet feet from the Southeast, corner of Section 5, Township 12 N., Range 92 W., of the 6th P.M. adopted as a monument, and is located in Section(s) 4 and 9 of Township 12 N., Range 92 W., of the 6th P.M.

The point of discovery or discovery shaft and surface boundaries have been marked or monumented in accordance with the laws of the United States and the statutes of the State above mentioned. The undersigned intend(s) to hold and work said claim under the laws of the United States and of said State and the customs and rules of miners of said District when and if established.

This Amended Notice is an amendment of claims previously located, staked, named and covered by the following notices:

1. (Lode) Located 11-53, Rec. 12-16-53, Book 327, page 424, #297416
2. (AMC) Rec. 2-19-54, book 329, page 252, fig. 299942
3. (AMC) Book 331, page 38, #301717, Rec. 4-9-54 (amended notice)
4. Assigned to Irving Pasternak, subject royalty reservation, by instrument #303203 Book 336, page 512, Rec. 9-7-54

Claim(s) No.(s) 2 & 3 above was (were) located and filed under the Atomic Energy Commission's Domestic Uranium Program, Circular 7 (10 C.F.R. 60.7(c)). This Amended Notice is posted and filed pursuant to the provisions of Public Law 585 hereinabove described and for the purpose of obtaining the benefits thereof and will be accompanied, preceded or followed with a withdrawal of Uranium Lease Application (or Uranium Lease) if any filed or issued, pursuant to the provisions of Public Law 585 within the time allowed thereunder.

This Amended Notice posted on the above designated corner of such claim this the day of NOVEMBER, 1954.

LOCATOR(S) or OWNER(S):

Irving Pasternak and LeRoy Benson

By: [signature] Agent

Address: 1650 California St., Denver, Colo.

Witness to Posting:

[signature]

# AMENDED NOTICE OF LOCATION OF MINING CLAIM

(Pursuant to Public Law 585, 83d Congress, Chapter 730, 68. Stat., 708 et seq. Approved August 13, 1954)

RECEIVED JUN 2 5 1959

KNOW ALL MEN BY THESE PRESENTS THAT:

IRVING PASTERNAK, 1650 California St., Denver, Colo. (claim owner) (and Sylvia Beeler and Earl C. Beeler, royalty holders)

Pasternak being a ....., citizen(s) of the United States, over the age of 21 years and residing in the County of Denver, State of Colorado, pursuant to the requirements of Public Law 585 approved August 13, 1954, as described in the caption hereof, owner(s) of a mining claim, as hereinafter described, located subsequent to December 31, 1952 and staked, posted and covered by notice or notices filed in the office of the County Clerk of the County and State hereinafter set forth, with filing information as stated, and located and established by right of discovery, location and notice, pursuant to the revised statutes of the United States, Chapter 2, Title 30, as amended by Public Law 585, and pertinent laws, hereby give(s) notice that the undersigned own(s) and hold(s) a mining claim, of the linear and horizontal measurement hereinafter set forth, of the extent allowed by such statutes and laws, situated in the Baggs (Unorganized) Mining District, in the County of Carbon, State of Wyoming, bounded and more particularly described, known as the ~~BIRK~~ POISON WASH CLAIM #5 Claim and duly referenced to a corner of a public land survey or permanent monument as follows, to-wit:

Beginning at the Southwest Corner thereof, at which this notice is posted, marked and designated therefor;

Thence, North, 600 feet to the Northwest corner thereof, marked and designated therefor;

Thence, East, 1500 feet to the Northeast corner thereof, marked and designated therefor;

Thence, South, 600 feet to the Southeast corner thereof, marked and designated therefor;

Thence, West, 1500 feet to the Southwest corner thereof, the place of beginning.

TIE: The Southwest corner of the above described tract is North, 1290 feet, ~~xxxx~~ from the South 1/4, corner of Section 4, Township 12 N., Range 92 W., of the 6 P.M. adopted as a monument, and is located in Section(s) 4 of Township 12 N., Range 92 W., of the 6 P.M.

The point of discovery or discovery shaft and surface boundaries have been marked or monumented in accordance with the laws of the United States and the statutes of the State above mentioned. The undersigned intend(s) to hold and work said claim under the laws of the United States and of said State and the customs and rules of miners of said District when and if established.

This Amended Notice is an amendment of claims previously located, staked, named and covered by the following notices:

1. (Lode) ~~Bakmi~~ Rec. 11-23-53, Bk. 326, P. 312, #296387 and
2. (AEC) Dated 3-27-54, Rec. 3-30-54, Bk. 330, P. ~~220~~ 449, #301348 by Earl C. and Sylvia
3. Beeler and assigned to I. Pasternak by Instru. #306262, Rec. 7-30-54, Bk. 334, P. 539 and Instru. #306263, Rec. 7-30-54, Bk. 334, P. 542.
4.

Claim(s) No.(s) 2 above was (were) located and filed under the Atomic Energy Commission's Domestic Uranium Program, Circular 7 (10 C.F.R. 60.7(c)). This Amended Notice is posted and filed pursuant to the provisions of Public Law 585 hereinabove described and for the purpose of obtaining the benefits thereof and will be accompanied, preceded or followed with a withdrawal of Uranium Lease Application (or Uranium Lease) if any filed or issued, pursuant to the provisions of Public Law 585 within the time allowed thereunder.

✓ This Amended Notice posted on the above designated corner of such claim this the 13TH day of NOVEMBER, 1954.

LOCATOR(S) or OWNER(S):

Irving Pasternak, Sylvia Beeler and Earl C. Beeler

By: I. Pasternak

Address: 1650 California St., Denver, Colo.

Witness to Posting:

E. W. Lewon

G. L. Gilbert

INFORMATION WANTED BY PROFESSOR KEATING TO SEND TO FEDERAL GOVT. WITH REFERENCE FOR LOAN. GOVERNMENT HAS DECIDED TO INCLUDE THE 6 CLAIMS (WHICH WERE NOT ORIGINALLY INCLUDED) WHICH ARE SURROUNDED BY THE OTHER CLAIMS FOR WHICH THEY ARE GRANTING LOAN.

RECEIVED
JUN 25 1955

POISON BASIN NO. 7 -
1. (Lode) located 11-53, Rec. 12-16-53, Book 327, page 426, #297418
2. (AEC) Rec. 2-19-54, Book 329, page 254, Flg. 299944
3. (AEC) Book 331, page 40, #301719, Rec. 4-9-54 (Amended Notice)
4. Assigned to Irving Pasternak subject to royalty reservation by Instru. #308023, Book 336, page 412, Rec. 9-7-54.
5. Recorded Nov. 5, 1954, at 9:45 a.m., Book 339, page 99, Rawlins Wyoming, Ins. No. 310452.

POISON BASIN NO. 8 -
1. (lode) located 11-53, Rec. 12-16-53, Book 327, page 427, #297419
2. (AEC) Rec. 2-19-54, Book 329, page 255, Flg. 299945
3. (AEC) Book 331, page 41, #301720, Rec. 4-9-54 (Amended notice
4. Assigned to Irving Pasternak, subject to royalty reservation by Instru. 308023, Book 336, page 412, Rec. 9-7-54.
5. Recorded Nov. 5, 1954, at 9:45 a.m., Book 339, page 100, Rawlins Wyoming, #310453.

POISON BASIN NO. 9 -
1. (LODE) located 11-53, Rec. 12-16-53, Book 327, page 428, #297420.
2. (AEC) Rec. 2-19-54, Book 329, page 256, Flg. 299946.
3. (AEC) Book 331, page 42, #301721, Rec. 4-9-54 (Amended Notice)
4. Assigned to Irving Pasternak, subject to royalty reservation by Instrument No. 308023, Book 336, page 412, Rec. 9-7-54.
5. Recorded Nov. 5, 1954, at 9:45 a.m., Book 339, page 101, Rawlins, Wyoming. No. 310454.

POISON BASIN NO. 10 -
1. (LODE) Located 11-53, Rec. 12-16-53, Book 327, page 429, #297421.
2. (AEC) Rec. 2-19-54, Book 329, page 257, Flg. 299947.
3. (AEC) Book 331, page 43, #301722, Rec. 4-9-54 (Amended Notice)
4. Assigned to Irving Pasternak subject to royalty reservation, by Instru. #308023, Book 336, page 412, Rec. 9-7-54.
5. Recorded Nov. 5, 1954, at 9:45 a.m., Book 339, page 102, Rawlins, Wyoming. No. 310455.

POISON BASIN NO. 11 -
1. (LODE) located 11-53, Rec. 12-16-53, Book 327, page 430 #7
2. (AEC) Rec. 2-19-54, Book 329, page 258, Flg. 299948.
3. (AEC) Book 331, page 44, #301723, Rec. 4-9-54 (Amended Notice)
4. Assigned to Irving Pasternak, subject to royalty reservation by Instru. No. 308023, Book 336, page 412, Rec. 9-7-54.
5. Recorded Nov. 5, 1954, at 9:45 a.m., Book 339, page 103, Rawlins, Wyoming. No. 310458.

POISON BASIN NO. 12--
1. (LODE) located 11-53, Rec. 12-16-53, Book 327, page 431, #297423.
2. (AEC) Rec. 2-19-54, Book 329, page 259, Flg. 299949.
3. (AEC) Book 331, page 45, #301724, Rec. 4-9-54 (Amended Notice)
4. Assigned to Irving Pasternak, subject to royalty reservation by Instrument #308023, Book 336, page 412, Rec. 9-7-54.
5. Recorded November 5, 1954, at 9:45 a.m., Book 339, page 104, Rawlins, Wyoming. No. 310457.

---

On Jo Nos. 10-18 - No royalty mentioned.
On Jo Nos. 21, 22, 23 - No royalty mentioned.
On Jo Nos. 25-29 - No royalty mentioned.

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

RECEIVED
MAY 17 1956

May 14, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (2) (With copy of additional information)
E. N. Harshman " " "

From: Field Team, Region III

Subject: DMEA Docket 4194 (Uranium) Shawano Development Corporation, (Shawano Poison Basin Mine), Carbon County, Wyoming

Enclosed is one copy of additional information submitted by the Applicant. Will you please place this additional information with the brochure which was forwarded you March 20, 1956.

DMEA Field Team, Region III

E. N. Harshman

By E. N. Harshman
Acting Executive Officer

Enclosure

EHC:ab

cc: Chair. Op. Comm. (2)
Docket 4194
Chron.

5-17-56

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

RECEIVED
MAY 17 1956

May 14, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman, Operating Committee, DMEA

From: Field Team, Region III

Subject: DMEA Docket 4194 (Uranium) Shawano Development Corporation, (Shawano Poison Basin Mine), Carbon County, Wyoming

Enclosed are two copies of additional information on the subject docket which have been submitted by the Applicant. Will you please place this information with the two copies of the brochure which you have in the Washington office.

One copy of this information has been forwarded to be placed with the Survey copy of the application and one copy to the engineer for inclusion in his copy of the application.

DMEA Field Team, Region III

E. N. Harshman

By E. N. Harshman
Acting Executive Officer

Enclosures

DMEA
Date Rec'd.

MAY 14 1956

PAUL H. KEATING
MINING ENGINEER

BUREAU OF MINES
Denver, Colorado

Golden, Colo., May 10, 1956.

RECEIVED

MAY 17 1956

Defense Minerals Expl. Adm.,
224 New Customs House, Denver, Colo.

Re: Docket No. 4194 (Uranium)
Shawano Dev. Corp., N.Y.

Gentlemen:

In an Application under the above docket No., and the geological and engineering report that accompanied it, there was a group of six contiguous claims lying within the perimeter of the entire area which were excluded from the proposed exploration. These claims are Poison Basin Nos. 7-12 inclusive.

The motive for excluding them was that a sizable ore body had already been discovered on Poison Basin #9 and #10, and considerable other exploratory drilling had already been done on that six-claim group. I felt that further drilling would approximate "development", and therefore fall outside approval of your Administration. However, it was specifically stated in my report that the ore bodies already discovered on this six-claim group were subject to the 5% royalty that would be due the DMEA when production started.

Yesterday, May 9, it was suggested that these claims be included in such contract as may be awarded. This suggestion apparently came from higher authority than the individual who passed it on to me. Apparently such inclusion would be more satisfactory to the Government's assurance of repayment-royalty from the ore bodies already discovered on this group.

This inclusion of Poison Basin Nos. 7-12 inclusive, in any DMEA contract that may be awarded is perfectly agreeable to the Applicant, PROVIDED: That the estimates of costs submitted with Form MF-103 remain unchanged in the Application. It is unlikely that actual drilling will take place under such an inclusion.

In an operation of this proposed magnitude it is impossible to completely regiment all details beforehand, and adaptations to sound engineering judgment must be in order at all times.

This will confirm to the DMEA and other Federal agencies concerned that the inclusion of this group of six claims into the group of 41 claims listed in the Application is satisfactory to the Applicant.

Very truly yours

Shawano Dev. Corp.,

By: Paul H. Keating
Paul H. Keating
Geologist-Consultant-Engineer.

PAUL H. KEATING
MINING ENGINEER

DMEA
Date Rec'd.
MAY 14 1956
BUREAU OF MINES
Denver, Colorado

Golden, Colorado
May 8, 1956

RECEIVED
MAY 17 1956

Defense Minerals Exploration Administration
224 New Customs House
Denver 2, Colorado

Re: Docket No. 4124
Shawano Dev. Corporation
430 Park Ave., New York

Gentlemen:

Last Tuesday, May 1, 1956, I met Messrs. Garrett and Vickers on the Baggs, Wyoming property, for field examination of the area, under the above Docket No.

These two field representatives requested certain additional data, and certain changes in the application to the DMEA. These requests were sound and reasonable, and I promised to furnish these requested data at the earliest possible moment.

These requested data are not presented as an amendment to the original application, but are offered as an addition to that application, in terms of sound thinking, added by Vickers of the USGS, and Garrett of the USBM. In fairness to me, however, I prepared that application on a basis of the findings and discovery of substantial tonnage of Uranium-bearing ore on a group of six claims (Poison Basin No. 7-12 inclusive); and the application was made largely upon an assumed continuity and uniformity of physical conditions surrounding that 6-claim area, (geological, stratigraphic, and economically-reachable). I felt that sufficient evidence had been developed on those six claims to warrant the application on the surrounding ground. In the text of the report these claims were excluded because they have already been explored.

HOWEVER, (and I wish to emphasize this): There was and is no intention of excluding the ore bodies already known. Please refer to Part V of my report, last paragraph on the first page of that part: "****The Applicant already has an ore reserve at nearly $5,500.000 worth of Uranium oxide in one shallow deposit. This reserve is subject to the 5% royalty required for DMEA repayment."

PAUL H. KEATING
MINING ENGINEER



Additions to the Application:

In the Engineering portion of the report, a uniform checkerboard pattern was proposed, at 100-ft. centers. Upon examination of the area by field men from the USGS and the USBM, and myself, it was agreed the exploratory drilling start on a larger basic square, --- perhaps on 500-ft. centers.

THEN, in areas that showed promising mineralization, the pattern on 100-ft. centers could be applied around such discovery drill holes.

The effect of such a procedure would be to more quickly blanket the entire area by a preliminary exploration, and statistically, at least, should indicate "mineralized provinces", which of course would be preferred areas for the closer 100-ft. centers.

It is not proposed that the depth of the holes be changed, nor that any hole be drilled off the co-ordinate system that has been established for the entire group of claims; nor that any hole on any pattern be drilled closer than 100 ft. to the boundary lines of any claim. Exploration closer than 100 ft. to the boundaries of each claim will be made by the Applicant at his own expense, (per the proposal made in my report).

- - - - - - -

The field representative of the USGS, Mr. Vickers, requested that he be furnished with any data available that lay outside the group of six claims that are excluded in the Application. (Poison Basin Nos. 7-12 inclusive).

Attached hereto are copies of an airborne survey conducted in 1954 by a Canadian Petroleum Engineer, one R.J.R. Schaller, of Winnipeg, and of the preliminary trenching dug out as a result of this airborne survey.

The preparation of these maps did not impress me greatly simply by the "sketchiness" of presentation. I have no reason to doubt the honest intention of the survey or data placed upon these maps. HOWEVER, I did not use any of these data in the preparation of my own report and the Application concerned.

These maps came my way among the mass of conversation and unorganized data at the time I was engaged to prepare the report. Beyond the demand of valid title to the property (Part I of the report), preceding conversations and data were not consulted.

PAUL H. KEATING
MINING ENGINEER



SUMMARY:--

1. Without substantially altering the proposed program and estimates of this Application (Docket No. 4194 ), the Applicant subscribes to:

   a. A preliminary exploration drilling pattern on 500-ft. checkerboard centers.

   b. A preferred 100-ft.-center drilling pattern around mineralized holes found in "a", above, --- in terms of time-sequence.

   c. Tentative acceptance of the validity of the airborne survey, and the maps of the trenches cut as a result thereof: THAT, preliminary exploration-drilling start at or near such anomalies and/or trenches, on 500-ft. centers, AND

   d. As this preliminary exploration discovers "mineralized provinces", closer drilling on 100 ft. centers should be made.

2. In an operation of this financial and areal magnitude, the Applicant suggests that the USGS, and/or the USBM, assign a competent resident geologist or engineer to this contract, as, if, and when awarded; and that the Applicant pay a just and reasonable portion of the expenses. Such an assignment will greatly increase the liaison between the authority of the Federal agencies, and the performance of the contract by the Applicant. I assure you, that the Applicant would welcome such an arrangement. I have adequate authority to make any fair commitments to this objective. This may involve conversations or additional written data. I therefore respectfully request an early date for further examination of this Application and the foregoing addenda for this purpose. This request is made mainly to expedite a decision from the agencies concerned.

Respectfully yours,

Paul H. Keating

Paul H. Keating

cc. U. S. Bureau of Mines
Attn. Mr. John F. Shaw and
Mr. Garrett

U. S. Geological Survey
Attn. Mr. Vickers

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

RECEIVED
FEB 27 1956

February 24, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA Aid (Uranium-Selenium), Shawano Development Corporation, Carbon County, Wyoming

Enclosed are three copies of the subject application in the amount of $481,920.00. One copy of the application is being retained in our file.

W. M. Traver

W. M. Traver

Enclosures

MF-103
(Revised April 1952)

DMEA
Date Rec'd.

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

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

FEB 23 1956

BUREAU OF MINES
Denver, Colorado

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

*Not to be filled in by applicant*

Docket No. 4194
Metal or Mineral Uranium
Date Received 2-27-56
Estimated Cost 481,920.
Participation (Government %) 75

## 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: SHAWANO DEVELOPMENT CORPORATION, (A Florida Corp.) Offices on 19th Floor, 430 Park Ave., New York, N.Y.

(*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. Corp.; Florida.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. Full data attached.

(*d*) If a partnership, add to the above statement the names and addresses of all partners. Full data attached.

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 This information is completely furnished in attached sheets and maps.

(*b*) State any mine name by which the property is known. "Shawano Poison Basin Mine".

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise: Owner, except for royalty of 5% described in attached data, on parts of the area only.

(*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. Applicant is the owner, except for 5% royalty described.

(*e*) If you own the land, describe any liens or encumbrances on it There are no other liens nor incumbrances beyond (c) and (d) above. Details attached.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Complete tabulated description attached hereto re Book and Page Nos. on file in the Co. Court House of Carbon Co., Rawlins, Wyo.

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. See att'd report.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. See att'd report.

(*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. See att'd. report and maps.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. Fully accessible. See att'd report on all of these subjects.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power. See attached report on all of these subjects. ALL of these requirements are available.

16—66551-1

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium, as a strategic mineral (element); Selenium as a by-product, but also subject to repayment-royalties to the DMEA.

(*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. Fully described in report attached.

(*c*) The work will start within 90 days and be completed within 24 months from the date of an exploration project contract.

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

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. (The above, "a" to "h" completely discussed, rept. att'd

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)? Yes.

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

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

Explain in detail on acompanying paper.

## CERTIFICATION

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

Dated January 10, 1956, 195__

SHAWANO DEVELOPMENT CORPORATION
430 Park Ave. (Applicant) New York, N.Y.
By Paul H Keating
Geologist-Engineer-Consultant
(Apt. 5, Mines Park, Golden Colo.)

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

PAUL H. KEATING
MINING ENGINEER

RECEIVED
FEB 27 1956

THE FOLLOWING PAGES ARE A LINE-BY-LINE REPLY TO FORM MF-103, (DEFENSE MINERALS EXPLORATION ADMINISTRATION), MADE BY THE SHAWANO DEVELOPMENT CORPORATION, 430 PARK AVENUE, NEW YORK FOR EXPLORATION ASSISTANCE ON AN AREA IN CARBON COUNTY, WYOMING

The data herewith is attached to Form MF-103 (five copies), and inserted in the front cover-pocket of the binder hereof. The same data is also bound as part of the Engineering-Gological report herewith. The purpose of this duplication is to retain within one binder all data concerning this Application.

Prepared and presented by
Paul H. Keating, Golden, Colo.

Signed Paul H. Keating

SHAWANO DEVELOPMENT CORPORATION
430 Park Ave., New York, N. Y.

Details to be attached to Form MF-103 (rev. April, 1952)

1. (a) Name of Applicant: Shawano Development Corporation, 430 Park Ave., New York, New York.

   (b) A corporation organized under the laws of the State of Florida.

   (c) Officers and addresses:

| | |
|---|---|
| Hon. Charlie E. Johns (ex.Gov. of Fla.) | Chairman of the Board and Director |
| Alexander L. Guterma | President and Director |
| Robert J. Eveleigh | Treasurer |
| Herman L. Close | Vice-President and Director |
| John E. Bollinger | Secretary and Director |
| William Stockton | Director |
| Pamela Scriven | Ass't. Secretary |

   The address of the above personnel is "19th Floor, 430 Park Ave., New York, N.Y.".

   (d) Not a partnership.

2. Applicant has complied. No replies required on Form MF-103.

3. Applicant's property rights:

   (a) Applicant holds clear title to 134 contiguous mining claims in the "Poison Basin" area of western Carbon County, Wyoming. Attached hereto is a map of the entire group. Forty-one of these claims are concerned in this application, and are marked on the attached

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3. (a) cont'd.

map by a suitable convention. On the next page is tabulated the Book and Page Numbers as filed in the Court House of Carbon County, Rawlins, Wyoming.

(b) State the name by which the property is known:

The property is known as "Shawano Poison Basin Mine."

(c) State (applicant's) interest:

The applicant's interest is as owner of this entire group of unpatented claims, with a royalty of 5% to one LeRoy Benson, of Baggs, Wyoming. Benson was the original locator of this group of claims. He sold it to Garfield and Pasternak, (Suite 1402, Mile-Hi Center, Denver, Colorado), who firmed up the title to the area through one A. K. Swan, their attorney. After clearance of title by Garfield & Pasternak, the property (as a whole) was transferred to the Applicant, the Shawano Development Corporation.

(d) Applicant is the owner, with the 5% over-ride described above.

(e) There are no liens nor encumbrances on the land beyond the 5% royalty described in (c), and (d) above.

(f) The land consists of unpatented claims. On the following pages is a tabulation of the forty-one claims concerned in this application, giving the Book and Page Number for each location notice and certificate.

4. Physical description: (Mining or exploration data, past and present: existing mine workings, and facilities; Applicant's interest in such operations, and accessibility for examination purposes):

(a) These data are fully covered in the accompanying geological and engineering report attached. But, for purposes of processing this application the following summary is given:

1. Mining (and exploration) have been en proces since August, 1955.

2. The operation is open-pit, mechanical-shovel operation, in the loose Browns Park formation in which the uranium bearing minerals have been found.

4. (a) cont'd.

3. The applicant has, on the ground, and in operation, all of the mechanical equipment necessary for exploration and production, (in terms of mechanical rippers, bull-dozers, and mechanical loaders).

4. The interest in this equipment is ownership, with which a sub-contractor will furnish the man-power for actual production.

5. Every square foot of the entire area is accessible, by car, or drill rig, or other mechanical device.

(b) Past and current production; ore reserves:

1. Production started in August, 1955. Attached hereto are photographic copies of "settlement sheets" from the United States Vanadium Corp. plant at Rifle, Colorado.

2. More than 100,000 tons of commercial $U_3O_8$ ore have been developed on Poison Basin claims Nos. 7 to 12 inclusive. These six claims are completely surrounded by the 41 claims concerned in this Application, --- but these six claims are NOT included for exploration hereunder. HOWEVER: There is no lithologic, structural, or stratigraphic difference between these developed claims and the surrounding area to which this Application is pertinent.

(c) Describe geologic features of the property, et al.

A geological and engineering report accompanies this application on this particular area. Maps, data, and technologic information is included in this report. It is not requested that this material be returned to the Applicant.

(d) State the facts re accessibility; roads, distances to shipping, supply and residential points:

1. Accessibility is complete. The area is 7-8 miles north-westerly from Baggs, Wyoming (a 250-pop. village). The entire area concerned herein can be reached by jeep, passenger car, or truck, and without abuse to the machine.

4. (d) cont'd.

2. Roads: The area is located about 7-8 miles northwest of Baggs, Wyoming, over unsurfaced but maintained roads.

3. At the date of this application, and heretofore, shipments of Uranium-bearing ore have been made to Rifle, Colorado, to the U. S. Vanadium Corporation mill. This distance is over surfaced roads, but it is 146 miles away. It has been made at a 10¢ per ton-mile cost. Inquiry by the Applicant has recently revealed that shipments can be made to Creston, Wyoming, to a Union Pacific rail-head, at savings of $3.00 to $5.00 per ton, -- which shipments will be consigned to a Salt Lake City refining mill. AT THIS DATE of application, negotiations are en proces to reduce current shipping costs.

4. There are sufficient "resident buildings" in the village of Baggs, to house and supply operating personnel for this project. "Supplies" are available, for all ordinary purposes, within 3-4 hours, at the city of Craig, Colorado, 41 miles south of Baggs. Trailer sites are available somewhat closer.

(e) Availability of manpower, materials, supplies, equipment, water, and power:

1. This operation requires only a limited personnel, but with a high order of educational background. The "machines" do most of the physical work. The skilled manpower is already on the Applicant's staff.

2. Materials, supplies, and equipment are already installed on the current producing area. THIS APPLICATION CONCERNS ONLY THE EXPLORATION OF THE SURROUNDING AREA.

3. Water is nearby -- a gas-drilling-operation within a mile of the area concerned herein has a flow of 2000 gallons per minute of good usable water, for industrial or domestic purposes. This water supply is available to the Applicant.

4. Power: Less than a mile from the area concerned, there is a natural gas well, discovered in 1955, by the Kerr-McGee interests. There is no pipeline to major consuming areas for this natural

4. (e) cont'd.

gas. This gas well is available to the Applicant for power (heat).

5. (a) State the mineral or minerals for which you wish to explore:

1. Uranium, which is a strategic mineral.

2. Selenium, the interest in which has been enormously stimulated within the last very few months. (This is not yet, at the date of this application, designated as a "strategic" element; BUT, the U. S. Bureau of Mines, the U. S. Geological Survey, and other Federal Agencies have added personnel to develop sources of Selenium). THE AREA CONCERNED IN THIS APPLICATION TO DMEA CONTAINS SELENIUM to an important degree.

Up to the date of this application to DMEA, there has never been found a primary ore of this element, Selenium. It has heretofore been a by-product of electrolytic copper-refining operation.

Negotiations are now en proces with major industrial interests who have the scientific and industrial know-how, to recover BOTH, Uranium and Selenium from this particular area. The Defense Minerals Exploration Administration will automatically receive its specified royalty from the recovery of both of these elements, Uranium and Selenium.

(b) Proposed work: The Applicant has already done $150,000 worth of work on a small "discovery portion" of this area. Sustaining production has come out of these efforts by limited "groping" operations, over less than 50 acres of the 2,500+ acres of land held by the Applicant.

The proposed work includes 301,350 feet of drilling in this particular area; on a controlled and closely-supervised pattern, by highly competent personnel; and with rigid and prompt reports of all findings, to the Federal Agencies concerned. Complete breakdown of this work is described and detailed in the attached engineering-geological report.

5. cont'd.

(c) The work will start within 90 days and will be completed within 24 months after the award of the contract applied for.

(d) Experience and background of the Applicant: This application to the DMEA has been prepared by Paul H. Keating, Golden, Colorado, whose first contact with Uranium-bearing minerals was during World War I (1917-1918). There is no person in the U. S. today with technical training, who has been longer in contact with Uranium-bearing minerals, their occurrence and their production.

Other personnel: Paul Rheinhard, Supt. of current operations has been in charge of ore-production for about 30 years, on properties producing mercury manganese, the base metals, and other natural resources.

These two men present the core of operations by the Applicant. These men will supervise and carefully direct the operation.

6. Estimate of costs:

(a) The Applicant has drilled over 200 exploration holes, but upon a relatively small part of the entire group of claims. This small area is no different geologically from the surrounding total area of the Applicant's holdings. Production from this small area has kept the operation alive. But, it is the belief of the Applicant that DMEA assistance can bring this area into <u>important</u> production of both Uranium, and Selenium. It is proposed to sub-contract items marked "*". Following are the estimates of costs:

| | | |
|---|---|---|
| *Drilling: | 301,350 ft. at $1.33/ft. | $401,800.00 |
| *Bulldozing: | 2,000 hrs.at 7.50/hr. | 15,000.00 |

(b) Supervision, accounting, engineering, consulting for two years:

| | | |
|---|---|---|
| Supt. at $500/mo. | $12,000.00 | |
| Accounting at $40/wk. | 4,160.00 | |
| Engineering, mapping, reports | 9,600.00 | |
| Consultants | 2,000.00 | |
| | $27,760.00 | 27,760.00 |
| | Carried Forward | $444,560.00 |

6. cont'd.

| | | |
|---|---|---|
| | Carried Forward | $444,560.00 |
| (c) Operating materials and supplies: | | |
| Drafting materials; printing of maps and narrative reports (6 copies per month); (over 2 years) | $ 2,400.00 | $ 2,400.00 |
| Water - nearby | | |
| Fuel - furnished by subcontractor | | |
| Power - furnished by subcontractor | | |
| (d) Operating equipment: | | |
| Applicant owns an Allis-Chalmers HD-5 Diesel loader, (a combination 'dozer, ripper, and overhead shovel loader). It is proposed to lease this machine to a subcontractor. Contractor will keep this machine in operatable condition. Its original cost is $12,000.00. It is estimated that the depreciation on this piece of equipment over the 2-year period proposed will be | | 5,000.00 |
| (e) None | | |
| (f) None | | |
| (g) Miscellaneous: Particularly "analytical work": It is the Applicant's intention to establish a competent agency on the ground for close and rapid chemical analyses of the cuttings obtained from the proposed drilling program, for both Uranium and Selenium. The results of these analyses will be kept up to date on the assay maps and in the reports to the Federal Agencies concerned. The "analytical work" will be by Root & Simpson, of Denver. This firm is one of the four chemical-assay umpires accepted by the Atomic Energy Commission. The Applicant estimates an averaged requirement of at least 1 sample from each proposed hole of 105 ft. depth; | | |
| | Carried Forward | $451,960.00 |

60 months depreciation
or $200/mo.

| | |
|---|---|
| Carried Forward | $451,960.00 |

6. (g) cont'd.

each to be assayed for Uranium and Selenium, at a cost of $8.00 per hole. 2,870 holes are in the proposed exploration program. The total assaying cost for the entire program of 2,870 exploration holes is estimated at $8.00 each. — 22,960.00

Accounting costs are described in "6 (b)" above.

Workman's Compensation, Employer's Liability Insurance, and payroll taxes are included in the agreements with the sub-contractor, or the Applicant, as interest may appear. — -------

(h) Contingencies: Rentals or purchase of new technological devices, by which quick field-type analyses may be made, or "cut-off" points of "ore", or "not ore", subject to close review by competent scientific personnel in the Federal Agencies interested, and by the Applicant's staff.

Such expenditures will not be made nor any work done without consultation with and approval by authorized personnel of the DMEA -- in writing. — 7,000.00

| | |
|---|---|
| TOTAL | $481,920.00 |

7. (a) The Applicant is prepared to furnish his (its) share of the cost of the proposed project, in accordance with the regulations on Government participation.

(b) The Applicant proposed to furnish his (its) share of the cost by <u>money</u>.

# PART . I

# TITLE TO THE PROPERTY

SHAWANO DEVELOPMENT CORP.

Data on the Poison Basin Group of Claims, Carbon County Wyoming. Filed on the Court House, at Rawlins, Wyoming.

| | Claim Name | Book | Page | Date |
|---|---|---|---|---|
| | Hope #3 | 339 | 117 | 11/5/54 |
| | Hope #4 | 339 | 118 | " |
| | Hope #5 | 339 | 119 | " |
| | Hope #6 | 339 | 120 | " |
| | Hope #7 | 339 | 121 | " |
| | Hope #14 | 339 | 127 | " |
| | Matt #1 | 339 | 129 | " |
| | Matt #2 | 339 | 131 | " |
| | Matt #3 | 339 | 133 | " |
| | Matt #4 | 339 | 135 | " |
| | Matt #5 | 339 | 137 | " |
| | Matt #6 | 339 | 139 | " |
| | Leah #19 | 339 | 384 | 11/17/54 |
| | Leah #20 | 339 | 386 | " |
| | Leah #21 | 339 | 388 | " |
| | Leah #22 | 339 | 390 | " |
| also 7,8,9, | Poison Basin #5 | 339 | 97 | 11/5/54 |
| 10,11,12 | Poison Basin #6 | 339 | 98 | " |
| | Poison Basin #13 | 339 | 105 | " |
| | North Slope #9 | 339 | 109 | " |
| | North Slope #9W | 339 | 113 | " |
| | North Slope #8 | 339 | 107 | " |
| | North Slope #8W | 339 | 111 | " |
| | Jo #10 | 339 | 532 | 11/17/54 |
| | Jo #11 | 339 | 533 | " |
| | Jo #12 | 339 | 534 | " |
| | Jo #13 | 339 | 535 | " |
| | Jo #14 | 339 | 536 | " |
| | Jo #15 | 339 | 537 | " |
| | Jo #16 | 339 | 538 | " |
| | Jo #17 | 339 | 539 | " |
| | Jo #18 | 339 | 540 | " |
| | Jo #21 | 339 | 541 | " |
| | Jo #22 | 339 | 542 | " |
| | Jo #23 | 339 | 543 | " |
| | Jo #24 | 339 | 544 | " |
| | Jo #25 | 339 | 545 | " |
| | Jo #26 | 339 | 547 | " |
| | Jo #27 | 339 | 145 | 11/5/54 |
| | Jo #28 | 339 | 548 | 11/17/54 |
| | Jo #29 | 339 | 549 | " |

# PART I

## TITLE TO THE PROPERTY

On the following pages is a complete listing of all claims held by the Shawano Development Corp. in the "Poison Basin" group. Only 41 of these claims is concerned in this Application; although all holdings are listed.

Each claim so concerned is underlined in red pencil.

Each claim upon which there is a "royalty" to the original locator is "boxed" in red pencil, and a reference number marked in the right-hand margin of the box. Full details of the royalty agreement are arranged at the back of this section of this report, with a corresponding number.

All of these data were compiled by Richard S. Hunt, Land Manager for Garfield & Pasternak, 1402 Mile Hi Center, Denver, Colorado. It was Garfield and Pasternak who "put the area together", through Hunt, and then transferred title to the Applicant, Shawano Development Corporation, 430 Park Ave., New York, N.Y.

Counsel for Garfield and Pasternak is Mr. A.K. Swan, whose Denver address is 1402 Mile Hi Center. Mr. Swan passed upon the attached instruments.

**GARFIELD AND PASTERNAK**
OIL PRODUCERS
MILE HIGH CENTER · SUITE 1402
**DENVER 2, COLORADO**

December 13, 1955

Professor Paul Keating
Box 163
Golden, Colorado

Re: Shawano Development Corporations
Baggs Claims - Poison Basin Area
Carbon County, Wyoming

Dear Sir:

As per your request in our telephone conversation of the 8th, I am enclosing in this letter all the necessary recording data covering the claims under which you are going to apply for your loan. I list the information as follows:

1. Hope #3

A. (AEC) Dated 3-15-54, Rec. 3-20-54, Bk. 330, P. 232, #301037, by LeRoy Benson under name of We Hope No. 3.

B. Amended (AEC) dated 7-15-54, Rec. 7-19-54, Book 334, P. 197, #305648 by LeRoy Benson as Hope #3.

C. Assigned by LeRoy Benson to Irving Pasternak, subject to royalty reservztion by instrument #308026, Rec. 9-7-54, Rec. 9-7-54, book 336, Page 424.

D. Recorded November 5, 1954 at 9:45 o'clock AM in Book 339, Page 117, Rawlins, Wyoming. No. 310465.

2. Hope #4

A. (AEC) Dated 3-15-54, Rec. 3-20-54, Book 330, Page 233, #301038 by LeRoy Benson as We Hope 4.

B. Amended (AEC) dated 7-15-54, Rec. 7-19-54, Book 334, Page 198, #305649 by LeRoy Benson as Hope #4.

C. Assigned to Irving Pasternak subject to royalty reservation, by Instrument #308026, Rec. 9-7-54, Book 336, Page 424.

D. Recorded November 5, 1954 at 9:45 AM in Book 339, Page 118, Rawlins, Wyoming. No. 310466

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3. Hope #5

A. (AEC) Dated 3-15-54, Rec. 3-20-54, Book 330, P. 234, #301039 by LeRoy Benson as We Hope 5.

B. Amended (AEC) dated 7-15-54, R c. 7-19-54, Bk. 334, P. 199 #035650 by LeRoy Benson as Hope #5.

C. Assigned to Irving Pasternak, subject to royalty reservation by Instrument #308026, Rec. 9-7-54, Book 336, Page 424.

D. Recorded November 5, 1954 at 9:45 AM in Book 339, Page 119, Rawlins, Wyoming. No. 310467.

3

4. Hope #6

A. (AEC) Dated 3-15-54, Rec. 3-20-54, Book 330, Page 235, #301940, by LeRoy Benson as We Hope 6.

B. Amended (AEC) Dated 7-15-54, Rec. 7-19-54, bk. 334, page 200, #305651 by LeRoy Benson as Hope #6.

C. Assigned to Irving Pasternak, subject to royalty reservation, by instrument #308026, Rec. 9-7-54, book 336, page 424.

D. Recorded 11-5-54, at 9:45 AM in book 339, page 120, Rawlins, Wyoming. No. 310468.

4

5. Hope #7

A. (AEC) Dated 3-15-54, Rec. 3-20-54, book 330, page 236, #301041, by LeRoy Benson as We Hope 7.

B. Amended (AEC) Dated 7-15-54, Rec. 7-19-54, book 334, page 201, #305652 by LeRoy Benson as Hope #7.

C. Assigned to Irving Pasternak, subject to royalty reservation, by instrument #308026, Rec. 9-7-54, book 336, page 424.

D. Recorded 11-5-54 at 9:45 AM in book 339, page 121, Rawlins, Wyoming. No. 310469.

5

6. Hope #8

A. (AEC) Dated 7-15-54, Rec. 7-19-54, Book 334, page 202, #305653.

B. Recorded 11-5-54 at 9:45 AM in book 339, Page 122, Rawlins, Wyoming. No. 310470.

7. Hope #9

A. (AEC) dated 7-15-54, Rec. 7-19-54, book 334, page 203, #305654

B. Recorded 11-5-54 at 9:45 AM in book 339, Page 123, Rawlins, Wyoming. No. 310471.

8. Hope #10

A. (Lode) Dated 11-21-53, Rec. 11-30-53, Bk. 326, P. 387, #296518 by Addie Corson as Cedar View Claim.

B. (AEC) Dated 4-24-54, Rec. 4-29-54, Book 331, P. 410, #302455 by Addie Corson as Cedar View.

C. Both assigned to Irving Pasternak by Instrument #310555, Rec. 11-8-54, Bk. 339. P. 173.

D. (AEC) Dated 7-15-54, Rec. 7-19-54, Bk. 334, P. 204, #305655.

E. Recorded 11-23-54 at 9:00 AM in Book 340, Page 20, Rawlins, Wyoming. No. 311300.

9. Hope #11

A. (Lode) Dated 11-21-53, Rec. 11-30-53. Book 326, page 395, #296524 by Maurice Wilson as The Rambler (No. 1).

B. (AEC) dated 7-15-54, Rec. 7-19-54, book 334, page 205, #305656 by Irving Pasternak as Hope #11

C. #1 has been assigned by Maurice Wilson by instrument #306009 Rec. 7-24-54, Book 334, Page 396, subject to royalty reservation.

D. Recorded 11-5-54, at 9:45 AM in Book 339, Page 124, Rawlins, Wyoming. No. 310472.

10. Hope #12

A. (Lode) Rec. 11-30-53, Bk. 326, P. 391, #296520 and

B. (Lode) Rec. 12-29-53, Bk. 327, Page 578, #297777 by L. A. Brazell as Little Tom #1

C. (AEC) Dated 7-15-54, Rec. 7-19-54, Bk. 334, P. 206, #305657 by Irving Pasternak as Hope #12.

D. #1 and #2 have been assigned by L. A. Brazell to Irving Pasternak subject to royalty reservation, Instrument #306010, Rec. 7-24-54, Book 334, page 399.

E. Recorded 11-5-54 at 9:45 AM in book 339, page 125, Rawlins, Wyoming. No. 310473.

11. Hope #13

A. (Lode) dated 11-29-53, Rec. 11-30-53, Book 326, page 388, #296517 by Maurice Wilson as Rambler No. 2

B. (Lode) dated 11-29-53, Book 327, page 574, #297775 by Maurice Wilson and Rambler No. 2

C. (AEC) Dated 7-15-54, Rec. 7-19-54, Bk. 334, P. 207, #305658 by Irving Pasternak as Hope #13.

11. Hope #13 (cont'd.)

D. #1 and #2 have been assigned by Maurice Wilson to Irving Pasternak by instrument #306009 Rec. 7-24-54, book 334, page 396, subject to royalty reservation.

E. Recorded 11-5-54 at 9:45 AM in Book 339, Page 126, Rawlins, Wyoming. No. 310474.

12. Hope #14

A. (Lode) Rec. 11-27-53, Bk. 326, P. 349, #290466 as Uranium Products #1 by Mary Ellen Sullins and assigned, without royalty, to I. Pasternak by Instru. #306207, Rec. 7-29-54, Bk. 334, P. 516. (covers Hope #14 in small portion.)

B. (Lode) Rec. 11-23-53, Bk. 326, P. 256, #296254 as Nuclear Explorations #8 by B. D. McCauley and Robt. M. Sullins insofar as it covers Hope #14 in small portion in north.

C. (Lode) Rec. 11-23-53, Bk. 326, P 257, #296255 as Nuclear Explorations #9 by Robt. M.Sullins (insofar as it covers Hope #14 in small portion in north.

D. (Lode) Rec. 11-23-53, Bk. 326, P. 258, #296256 as Nuclear Explorations #10 by B. D. McCauley (insofar as it covers Hope #14 in small portion in north.)
#2, 3 and 4 assigned by B. D. McCauley and Robt. M. Sullins to I. Pasternak, without royalty, by Instrument #306206, Bk. 334, P. 514, Rec. 7-29-54.

E. (Lode) Rec. 12-30-53, Bk. 328, P. 12, #297866 as Poison Basin Rose Petal by Wilbur C. Baker and assigned, subject to royalty, to I. Pasternak by instrument #306208, Rec. 7-29-54, Bk. 334, P. 518. (covers same lands as Hope #14.)

F. (AEC) Dated 2-20-54, Rec. 3-20-54, Bk. 330, P. 229, #301034 by LeRoy Benson as Poison Basin No. 7A insofar as it covers the same lands as Hope #14. Assigned, subject to royalty, to I. Pasternak by Instrument #308026, Bk. 336, P. 424.

G. (AEC) Dated 7-15-54, Bk. 334, P. 208, #305659 by LeRoy Benson as Hope #14 and also assigned to I. Pasternak, subject to royalty reservation, by Instrument #308026, Bk. 336, P. 424.

H. Recorded 11-5-54 at 9:45 AM in Book 339, Page 127, Rawlins, Wyoming. No. 310475.

1. Matt #1

A. (Lode) Rec. 12-30-53, Bk. 328, P. 9, #297863 as Horseshoe No. II insofar as it covers Matt #1 in north half.

B. (AEC) Rec. 5-22-54, Bk. 332, P. 423, #303586 as Horseshoe No. II insofar as it covers North half of Matt #1. #1 and #2 assigned to I. Pasternak by Instru. #308058, Rec. 9-7-54, Bk. 336, P. 463.

C. (AEC) Rec. 3-20-54, Bk. 330, P. 237, #301042 as Weber-Benson No. 1 insofar as it covers same lands as Matt #1. Assigned to I. Pasternak by Instru. #308028, Rec. 9-7-54, Bk. 336, P. 430 and Instru. #306013, Rec. 7-24-54, Bk. 334, P. 411.

D. (Lode) Rec. 11-27-53, Bk. 326, P 349, #296466 as Uranium Products #1 insofar as it covers Matt #1 in the southwest corner. Assigned to I. Pasternak by Instru. #306207, Book 334, P. 516, Rec. 7-29-54.

E. (AEC) (Amended) Rec. 7-19-54, Bk. 334, P. 191, #305642 as Matt #1 (formerly Weber Benson No. 1) by LeRoy and Matt Weber. Assigned to I. Pasternak as per #3 above.

F. Recorded November 5, 1954 at 9:45 AM in Book 339, Page 129, Rawlins, Wyoming. No. 310476.

2. Matt #2

A. (AEC) Rec. 3-20-54, Bk. 330, P. 238, #301043 by LeRoy Benson and Matt Weber as Weber-Benson No. 2. Assigned, subject to royalty, to Irving Pasternak by Instrument #306013 Rec. 7-24-54, Bk. 334, P. 411 and #308028, Rec. 9-7-54, Bk. 336, P. 430.

B. (Lode) Rec. 12-30-53, Bk. 328, P. 9, #297863 and

C. (AEC) Rec. 5-22-54, Bk. 332, P 423, #303586 as Horseshoe Number II inasmuch as it covers Matt No. 2 in the south half. Assigned by Instr. #308058, Bk. 336, P. 463, Rec. 9-7-54.

D. (AEC) Rec. 7-24-54, Bk. 334, P. 422, #306021 by Irving Pasternak insofar as it covers Matt No. 2 in the northeast corner.

E. (AEC) Rec. 7-24-54, Bk. 334, P. 415, #306014 by Irving Pasternak insofar as it covers Matt No. 2 in the southeast corner.

F. (AEC) Rec. 3-20-54, Bk. 330, P. 241, #301046 by LeRoy Benson and Matt Weber as Weber-Benson No. 5 insofar as it covers Matt No. 2 in the southeast corner. Assigned to Irving Pasternak, subject to royalty, by Instrument #306013, Rec. 7-24-54, Bk. 334, P. 411, and #308028, Rec. 9-7-54, Bk. 336, P. 430.

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2. Matt #2

G. (AEC) (Amended) Rec. 7-19-54, Bk. 334, P. 192, #305643 by LeRoy Benson and Matt Weber as Matt #2. Assigned as per #6 above.

H. Rec. 11-5-54. Bk. 339, P. 131, Rawlins, Wyoming. #310477.

3. Matt #3

A. (AEC) Rec. 3-20-54, Bk. 330, P. 239, #301044 by Matt Weber and LeRoy Benson as Weber Benson No. 3 insofar as it covers the same lands as Matt #3. Assigned to Irving Pasternak, subject to royalty, by instruments #306013, Rec. 7-24-54, Bk. 334, P. 411 and #308028, Rec. 9-7-54, Bk. 336, P. 430.

B. (Lode) Rec. 12-30-54, Bk. 328, P. 1, #297855 and

C. (AEC) Rec. 5-22-54, Bk. 332, P. 415, #303578 as Wild Horse No. 1 insofar as it covers same lands as Matt #3. Assigned by instrument #308058, Rec. 9-7-54, Bk. 336, P. 463.

D. (Lode) Rec. 11-27-53, Bk. 326, P. 349, #296207, Rec. 7-29-54, Bk. 334, P. 516.

E. (Lode) Rec. 11-23-53, Bk. 326, P. 256, #296254 as Nuclear Explorations #8 insofar as it overlaps Matt #3 in the southwest corner. 8

F. (Lode) Rec. 11-23-53, Bk. 326, P. 257, #296255 as Nuclear Explorations #9 insofar as it overlaps Matt #3 in part of the southwest section.

G. (Lode) Rec. 11-23-53, Bk. 326, P. 258, #296256 as Nucelar Explorations #10 insofar as it overlaps Matt #3 in part of the Southeast quarter.

H. (AEC) (Amended) Rec. 7-19-54, Bk. 334, P. 193, #305644 as Matt #3 (formerly Weber Benson No. 3) by LeRoy Benson and Matt Weber. Assigned by #305644, Rec. 7-19-54, Bk. 334, P. 193. #5, 6 and 7 assigned by Instrument #306206, Bk. 334, P 514, Rec. 7-29-54.

I. Recorded 11-5-54 at 9:45 AM in Book 339, Page 133, Rawlins, Wyoming. No. 310478.

4. Matt #4

A. (AEC) Rec. 3-20-54, Bk. 330, P. 240, #301045 by LeRoy Benson and Matt Weber as Weber Benson No. 4 insofar as it covers same lands as Matt #4. Assigned to Irving Pasternak, subject to royalty by Instrument #308028, Rec. 9-7-54, Bk. 336, P. 430 and #306013, Bk. 334, P. 411, Rec. 7-24-54. 9

B. (AEC) Rec. 7-24-54, Bk. 334, P. 415, #306014 by Irving Pasternak as Matt #5 insofar as it overlaps Matt #4 in the northeast corner.

4. Matt #4 (cont'd.)

C. (AEC) Rec 7-[illegible]-54 Bk. 334, P 416 #306015, by Irving Pasternak as Matt #6 insofar as it overlaps Matt #4 in the northwest corner and part of the northeast corner.

D. (AEC) Rec. 3-20-54, Bk. 330, P. 241, #301046 by LeRoy Benson and Matt Weber as Weber Benson No. 5 insofar as it overlaps Matt #4 in the northeast corner.

E. (AEC) Rec. 3-20-54, Bk. 330, P. 242, #301047 by LeRoy Benson and Matt Weber as Weber Benson No. 6 insofar as it overlaps Matt #4 in northwest corner and part of the northeast corner. #4 and #5 assigned by same assignments referred to in #1 above.

F. (AEC) (Amended) Rec. 7-19-54, Bk. 334, P. 194, #305645 by LeRoy Benson and Matt Weber as Matt #4 (formerly Weber Benson No. 4).

G. Recorded November 5, 1954 at 9:45 AM in Book 339, Page 135, Rawlins, Wyoming. No. 310479.

5. Matt #5

A. (AEC) Dated 2-20-54, Rec. 3-20-54, Bk. 330, P. 241, #301046 as Weber Benson No. 5 by Matt Weber and LeRoy Benson, covering substantially same lands as Matt #5.

B. (AEC) (Amended) Rec. 7-19-54, Bk. 334, P. 192, #305643 by LeRoy Benson and Matt Weber as Matt #2 (formerly Weber Benson No. 2) insofar as it covers So. 120 ft. of Matt #5.

C. (AEC) Rec. 3-20-54, Bk. 330, P. 238, #301043 by LeRoy Benson and Matt Weber as Weber Benson No. 2 insofar as it covers So. 120 ft. of Matt #5.

D. (AEC) Amended, Rec. 7-19-54, Bk. 334, P. 194, #305645 by LeRoy Benson and Matt Weber as Matt #4 (formerly Weber Benson No. 4) insofar as it covers So. 120 ft. of Matt #5.

E. (AEC) Rec. 3-20-54, Bk. 330, P. 240, #301045 by LeRoy Benson and Matt Weber as Weber Benson No. 4, insofar as it covers So. 120 ft. of Matt #5.

F. (AEC) Rec. 7-24-54, Bk. 334, P. 415, #306014 as Matt #5 by Irving Pasternak.
#1, 2, 3, 4, 5 assigned to Irving Pasternak by Instrument #308028, Rec. 9-7-54, Bk. 336, P 430, #306013, Bk. 334, P. 411, Rec. 7-24-54.

G. Recorded November 5, 1954 at 9:45 AM in Book 339, Page 137, Rawlins, Wyoming. No. 310480.

6. Matt #6

A. (AEC) Rec. 3-20-54, Bk. 330, P. 242, #301047 as Weber Benson No. 6 by Matt Weber and LeRoy Benson covering substantially same lands as Matt #6. Assigned as per #3 below.

B. (AEC) (Amended) Rec. 7-19-54. Bk. 334, P. 194, #305545 (formerly Weber Benson No. 4) by LeRoy Benson and Matt Weber insofar as it overlaps Matt #6 on So. 120 ft.

C. (AEC) Rec. 3-20-54, Bk. 330, P. 240, #301045 by LeRoy Benson and Matt Weber as Weber Benson No. 4 insofar as it overlaps Matt #6 on So. 120 ft. Assigned to Pasternak by Instrument #306013, Rec. 7-24-54, Bk. 334, P. 411 and #308028, Rec. 9-7-54, Bk. 336, P. 430.

D. (AEC) Rec. 7-19-54, Bk. 334, P. 230, #305681 by I. Pasternak as Leah #22 insofar as it overlaps Matt #6 on So. 120 ft.

E. (AEC) Rec. 3-17-54, Bk. 330, P. 25, #300822 by P. S. Weber and Matt Weber as Poison Claim 9 insofar as it overlaps Matt #6 on So. 120 ft. Assigned to Pasternak by Instrument #306008, Rec. 7-24-54, Bk. 334, P. 392.

F. (AEC) Rec. 7-24-54, Bk. 334, P. 416, #306015 by I. Pasternak as Matt #6.

G. Recorded 11-5-54 at 9:45 AM in Book 339, Page 139, Rawlins, Wyoming. No. 310481.

1. Leah #19

A. (AEC) Rec. 5-22-54, Bk. 332, P. 417, #303580 as Wild Horse No. 3 insofar as it covers same lands as Leah #19. Assigned to I. Pasternak by Instrument #308059, Rec. 9-7-54, Bk. 336, P. 466.

B. (Lode) Rec. 12-30-53, Bk. 328, P. 3, #297857 as Wild Horse No. 3 insofar as it covers same lands as Leah #19 and assigned by same instrument as #1 above.

C. (AEC) Rec. 3-17-54, Bk. 330, P. 22, #300819 as Poison Claim No. 6 insofar as it covers same lands as Leah #19. Assigned by P. S. and Matt Weber by Instrument #306008, Bk. 334, P. 392, Rec. 7-24-54.

D. (Lode) Rec. 11-23-53, Bk. 326, P. 254, #296252, as Nucelar Explorations No. 6.

E. (Lode) Rec. 11-23-53, Bk. 326, P. 255, #296253 as Nucelar Explorations No. 7.

F. (Lode) Rec. 11-23-53, Bk. 326, P. 256, #296254 as Nucelar Explorations No. 8.
#4, 5 and #6 overlap Leah #19 in West, Central and East portions and were assigned to I. Pasternak by Instrument #306206, Rec. 7-29-54, Bk. 334, P. 514.

1. Leah #19 (cont'd.)

G. (AEC) Rec. 7-19-54, Bk. 334, P. 227, #305678 by I. Pasternak as Leah #19.

H. Recorded November 17, 1954 at 11:15 AM in Book 339, Page 384, Rawlins, Wyoming. No. 311012.

2. Leah #20

A. (AEC) Rec. 5-22-54, Bk. 332, P. 420, #303583 and

B. (Lode) Rec. 12-30-53, Bk. 328, P. 6, #297860 as Wild Horse No. 6, covering same lands as Leah #20. Assigned to I. Pasternak by Instrument #308059, Bk. 336, P. 466, Rec. 9-7-54.

C. (AEC) Rec. 3-17-54, Bk. 330, P. 23, #300820 as Poison Claim No. 7 covering same lands as Leah #20. Assigned to I. Pasternak by Weber and Weber, Instrument #306008, Bk. 334, P. 392, Rec. 7-24-54.

D. (Lode) Rec. 11-23-53, Bk. 326, P. 254, #296252 as Nucelar Explorations No. 6.

E. (Lode) Rec. 11-23-53, Bk. 326, P. 255, #296253 as Nucelar Explorations No. 7.

F. (Lode) Rec. 11-23-53, Bk. 326, P. 256, #296254 as Nucelar Explorations No. 8.
#4, 5 & 6 overlap Leah #20 in West, Central and East portions and were assigned to I. Pasternak by Instrument #306206, Rec. 7-29-54, Bk. 334, P. 514.

G. (AEC) Rec. 7-19-54, Bk. 334, P. 228, #305679 by I. Pasternak as Leah #20.

H. Recorded November 17, 1954 at 11:15 AM in Book 339, Page 386, Rawlins, Wyoming. No. 311013.

3. Leah #21

A. (AEC) Rec. 5-22-54, Bk. 332, P. 416, #303579 and

B. (Lode) Rec. 12-30-53, Bk. 328, P. 2, #297856 as Wild Horse No. 2 insofar as it covers same lands as Leah #21. Assigned to I. Pasternak by Instrument #308059, Rec. 9-7-54, Bk. 336, P. 466.

C. (AEC) Rec. 3-17-54, Bk. 330, P. 24, #300821 as Poison Claim No. 8, insofar as it covers same lands as Leah #21. Assigned by Weber and Weber to I. Pasternak by Instrument #306008, Bk. 334, P. 392, Rec. 7-24-54.

D. (Lode) Rec. 11-23-53, Bk. 326, P. 254, #296252 as Nucelar Explorations No. 6.

3. LEAH #21

E. (Lode) Rec. 11-23-53, Bk. 326, P. 255, #296253 as Nucelar Explorations No. 7.

F. (Lode) Rec. 11-23-53, Bk. 326, P 256, #296254 as Nucelar Explorations No. 8.
#4, 5 and 6 overlap Leah #21 in Southwest, South Central and Southwest portions and were assigned to I. Pasternak by Insrument #306206, Rec. 7-29-54, Bk. 334, P. 514.

G. (AEC) Rec. 7-19-54, Bk. 334, P 229, #305680 by I. Pasternak as Leah #21.

H. Recorded November 17, 1954 at 11:15 AM in Book 339, Page 388, Rawlins, Wyoming. No. 311014.

4. LEAH #22

A. (AEC) dated 7-15-54, Rec. 7-19-54, book 334, page 230, #305681.

B. (AEC) dated 3-15-54, Rec. 3-17-54, book 330, page 25, #300822, known as Poison Claim No. 9.

C. Assigned to I. Pasternak by Instrument #306008, Bk. 334, P. 392, Rec. 7-24-54, by P. S. and Matt Weber.

D. Recorded November 17, 1954 at 11:15 AM in Book 339, Page 390, Rawlins, Wyoming. No. 311015.

1. POISON BASIN NO. 5

A. (Lode) Located 11-53, Rec. 12-16-53, Book 327, Page 424, #297416.

B. (AEC) Rec. 2-19-54, Book 329, Page 252, flg. 299942.

C. Book 331, Page 38, #301717, Rec. 4-9-54 (amended notice). 10

D. Assigned to Irving Pasternak, subject to royalty reservation, by instrument #308023, Book 336, Page 412, Rec. 9-7-54.

E. Recorded November 5, 1954, at 9:45 AM in Book 339, Page 97, Rawlins, Wyoming. No. 310450.

2. POISON BASIN NO. 6

A. (Lode) Located 11-53, Rec. 12-16-53, Book 327, Page 425, #397417.

B. (AEC) Rec. 2-19-54, Book 329, Page 253, flg. 299943. 11

C. (AEC) Book 331, Page 39, #301718, Rec. 4-9-54 (Amended notice.)

D. Assigned to Irving Pasternak, subject to royalty reservation, by Instrument #308023, Book 336, Page 412, Rec. 9-7-54.

2. Poison Basin No. 6 (cont'd.)

E. Recorded in Book 339, Page 98 on November 5, 1954 at 9:45 AM, Rawlins, Wyoming. No. 310451.

3. Poison Basin No. 13

A. (Lode) Dated 11-27-53, Rec. 11-27-53, Bk. 326, #296466 as Uranium Products #1 insofar as it overlaps Poison Basin No. 13. Assigned to I. Pasternak by Locator, Mary Ellen Sullins, by Instrument #306207, Bk. 334, P. 510, Rec. 7-29-54.

B. (Lode) Located 11-53, Rec. 12-16-53, Bk. 327, P. 432, #297424 by LeRoy Benson.

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C. (AEC) Rec. 2-19-54, Bk. 329, P. 260, #299950 by LeRoy Benson.

D. (EC) Bk. 331, P 46, #301725, Rec. 4-9-54 (Amended) by LeRoy Benson.
#2, 3, 4, assigned by LeRoy Benson to I. Pasternak by Instrument #308023, Bk. 336, P. 412. Rec. 9-7-54, subject to royalty reservation.

E. Recorded 11-5-54, Book 339, Page 105, Rawlins, Wyo., #310458.

1. Poison Basin (North Slope) No. 9

A. (Lode) Dated 11-27-53, Rec. 11-27-53, Bk. 326, P 349, #296466 as Uranium Products #1 insofar as it overlaps Poison Basin (North Slope) No. 9 on the west. Assigned to I. Pasternak by Locator, Mary Ellen Sullins, by Instr. #306207, Bk. 334, P. 516, Rec. 7-29-54.

B. (Lode) Located 11-53, Rec. 12-16-53, Book ,Page , #
by LeRoy Benson.

C. (AEC) Rec. 2-19-54, Bk. 329, P. 241, #299901 by LeRoy Benson 13

D. (AEC) Amended, Dated 3-19-54, Rec. 3-20-54, Bk. 330, P. 249, #301054 by LeRoy Benson.

E. (AEC) Amended, dated 3-25-54, Rec. 3-26-54, Bk. 330, P. 432, #301266 by LeRoy Benson.

F. (AEC) Amended, Rec. 4-29-54, Bk. 331, P. 49, #301728 by LeRoy Benson.
#2, 3 & 6 assigned by LeRoy Benson to I. Pasternak by Instru. #308023, Bk. 336, P. 412, Rec. 9-7-54, subject to royalty reservation.

G. Rec. 11-5-54 - Bk. 339 - P. 109, Rawlins, Wyo. # 310460

2. Poison Basin West (North Slope) No. 9W

A. (Lode) located 11-53, Rec. 12-16-54, Bk. P. ,# ,
by LeRoy Benson and any other prior notice posted or filed by the undersigned. 14

2. Poison Basin West (North Slope) No. 9W (cont'd.)

B. (AEC) Rec. 2-19-54, Bk. 329, P. 238, #299898 by LeRoy Benson

C. (AEC) Amended Dated 3-20-54, Rec. 3-20-54, Bk. 330, P. 247, #301052 by LeRoy Benson

D. (AEC) Bk. 331, P. 50, #301729, Rec. 4-9-54, by LeRoy Benson.

E. (Lode) Dated 11-27-53, Rec. 11-27-53, Bk. 326, P. 349, #296466 as Uranium Products #1 insofar as it overlaps Poison Basin West (North Slope) No. 9 W.

F. (Lode) Rec. 11-23-53, Bk. 326, P. 256, #296254 as Nucelar No. 8 insofar as it overlaps Poison Basin West (North Slope) No. 9W.

G. (Lode) Rec. 11-23-53, Bk. 326, P 257, #296255 as Nucelar Explorations No. 9 insofar as it overlaps Poison Basin West (North Slope) No. 9W.

H. (Lode) Rec. 11-23-53, Bk. 326, P. 258, #296256 as Nucelar Explorations No. 10 insofar as it overlaps Poison Basin West (North Slope) No. 9 W.

I. (Lode) Dated 11-28-53, Rec. 12-30-53, Bk. 328, P. 7, #297861 as Wild Horse No. 7.

J. (AEC) Dated 5-22-54, Bk. 332, P. 421, #303584 as Wild Horse No. 7.
#1, 2, 4 assigned by LeRoy Benson to I. Pasternak by Instrument #308023, Rec. 9-7-54, Bk. 336, P. 412, subject to royalty reservation.

K. Rec. 11-5-54 - Bk. 334 - P. 113, Pawline, Wyo. # 310462

3. Poison Basin (North Slope) No. 8

A. (Lode) Dated 11-27-53, Rec. 11-27-53, Bk. 326, P. 349, #296466 as Uranium Products #1 insofar as it overlaps Poison Basin (North Slope) No. 8 on the west. Assigned to I. Pasternak by Locator, Mary Ellen Sullins, by Instrument #306207, Bk. 334, P. 516, Rec. 7-29-54.

B. (Lode) Dated 12-30-53, Rec. 12-30-53, Bk. 328, P. 10, #297864 as Horseshoe No. III.

C. (AEC) Dated 5-21-54, Rec. 5-22-54, Bk. 332, P. 424, #303587 as Horseshoe No. III. 15

D. (Lode) Located 11-53, Rec. 12-16-53, Bk. , P. , # by LeRoy Benson as Poison Basin (North Slope) No. 8.

E. (AEC) Rec. 2-19-54, Bk. 329, P. 240, #299900 by LeRoy Benson as Poison Basin (North Slope) No. 8.

F. (AEC) Amended Dated 3-20-54, Rec. 3-20-54, Bk. 330, P. 246, #301051 as Poison Basin (North Slope) No. 8.

G. (AEC) Rec. 4-9-54, Bk. 331, P 47, #301726 (Amended) by LeRoy Benson as Poison Basin (North Slope) No. 8.

3. Poison Basin (North Slope) No. 8

H. (AEC) Dated 7-8-54, Bk. 334, P. 3, #305317 by LeRoy Benson as Poison Basin (North Slope) No. 8.
Or any other prior notice posted or filed by either of the undersigned.
#4, 5, 7 and 8 Assigned by LeRoy Benson to I. Pasternak by Instrument #308023, Bk. 336, P. 412, Rec. 9-7-54, subject to royalty reservation.
#2 and 3 above assigned by Instrument #308057, Rec. 9-7-54, Bk. 336, P. 459 to I. Pasternak.

I. Rec. 11-5-54 Bk. 337 - P. 107, Carbon, Wyo. # 310407

3. Poison Basin (North Slope) West No. 8

A. (Lode) located 11-53, Rec. 12-16-53, Bk. , P. , # , by LeRoy Benson or any other prior notice posted or filed by the undersigned.

B. (AEC) Rec. 2-19-54, Book 329, Page 239, #299899 by LeRoy Benson.

C. (AEC) Book 331, Page 48, #301727, Rec. 4-9-54 (Amended Notice) by LeRoy Benson.

D. (Lode) Dated 11-27-53, Rec. 11-27-53, Bk. 326, P. 349, #296466 as Uranium Products #1 insofar as it overlaps Poison Basin (North Slope) West No. 8.

E. (Lode) Rec. 11-23-53, Bk. 326, P. 256, #296254 as Nucelar Explorations No. 8 insofar as it overlaps Poison Basin (North Slope) West No. 8.

F. (Lode) Rec. 11-23-53, Bk. 326, P. 257, #296255 as Nucelar Explorations No. 9 insofar as it overlaps Poison Basin (North Slope) West No. 8.

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G. (Lode) Rec. 11-23-53, Bk. 326, P. 258, #296256 as Nucelar Explorations No. 10 insofar as it overlaps Poison Basin (North Slope) West No. 8.

H. (Lode) Dated 12-30-53, Rec. 12-30-53, Bk. 328, P. 11, #297865 as Horseshoe No. IV.

I. (AEC) Dated 5-21-54, Rec. 5-22-54, Bk. 332, P. 425, #303588 as Horseshoe No. IV.
#1, 2 and 3 assigned by LeRoy Benson to I. Pasternak by Instrument #308023, Rec. 9-7-54, Bk. 336, P. 412, subject to royalty reservation.
#4 above assigned to I. Pasternak by Instrument #306207, Rec. 7-29-54, Bk. 334, P 516.
#5, 6 & 7 above assigned to I. Pasternak by Instrument #306206, Rec. 7-29-54, Bk. 334, P. 514.
#8 and 9 above assigned to I. Pasternak by Instrument #308057, Rec. 9-7-54, Bk. 336, P. 459.

J. Rec. 11-5-54 Bk. 337 - P. 111. Carbon, Wyo. # 310461

1. Jo No. 10

A. (AEC) Rec. 7-19-54, Bk. 334, Page 240, #305691

B. (AEC) Rec. 7-19-54, Book 334, Page 241, #305692
C. Rec 11-17-54, Bk 339 P [illegible], Kanlam Co. # 311157

2. Job No. 11

A. (AEC) Rec. 7-19-54, Book 334, Page 242, #305693

B. (AEC) Rec. 7-19-54, Book 334, Page 243, #305694
C. Rec 11-17-54 - Book 339 - P [illegible], Kanlam Co. # 311158

3. Jo No. 12

A. (AEC) Rec. 7-19-54, Book 334, Page 244, #305695

B. (AEC) Rec. 7-19-54, Book 334, Page 245, #305696
C. Rec 11-17-54 - Book 339 P [illegible] 34, Kanlam Co. # 311159

4. Jo No. 13

A. (AEC) Rec. 7-19-54, Book 334, Page 246, #305697

B. (AEC) Rec. 7-19-54, Book 334, Page 247, #305698
C. Rec 11-17-54 Book 339 - P [illegible], Kanlam Co. # 311173

5. Jo No. 14

A. (AEC) Rec. 3-17-54, Bk. 330, P. 14, #300811 as Betty Claim insofar as it covers Jo No. 14.

B. (AEC) Rec. 3-17-54, Bk. 330. P. 15, #300812 as Mary Claim insofar as it covers Jo No. 14, in western part.

C. (AEC) Rec. 7-19-54, Bk. 334, P. 249, #305700 by I. Pasternak as Jo No. 14.

D. (AEC) Rec. 7-19-54, Bk. 334, P. 248, #305699 by I. Pasternak as Jo No. 14.
E. Rec 11-17-54 Book [illegible] Co. # 311161

6. Jo No. 15

A. (AEC) Rec. 3-17-54, Bk. 330, P. 14, #300811 as Betty Claim insofar as it covers Jo No. 15.

B. (AEC) Rec. 3-17-54, Bk. 330, P. 15, #300812 as Mary Claim insofar as it covers Jo. No. 15, in western part.

C. (AEC) Rec. 7-19-54, Bk. 334, P. 250, #305701 as Jo No. 15 by I. Pasternak

D. (AEC) Rec. 7-19-54, Bk. 334, P. 251, #305702 as Jo No. 15 by I. Pasternak.
E. Rec 11-17-54 Bk. 339 - P [illegible] Kanlam Co. # 311162

7. Jo No 16

A. (AEC) Rec. 3-17-54, Bk. 330, P. 14, #300811 as Betty Claim insofar as it covers Jo No. 16 in the central portion.

B. (AEC) Rec. 3-17-54, Bk. 330, P. 15, #300812 as Mary Claim insofar as it covers Jo No. 16 in the western part.

7. Jo No. 16 (cont'd.)

C. (AEC) Rec. 7-19-54, Bk. 334, P. 252, #305703 by I. Pasternak as Jo No. 16

D. (AEC) Rec. 7-19-54, Bk. 334, P. 253, #305704 as Jo No. 16 by I. Pasternak

E. Rec. 11-17-54 - Bk. 339 - P. 538, Rawlins, Wyo. - # 311163

8. Jo No. 17

A. (AEC) Rec. 7-19-54, Book 334, Page 254, #305705

B. (AEC) Rec. 7-19-54, Book 334, Page 255, #305706.

C. Rec. 11-17-54. Bk. 339 - P. 539, Rawlins, Wyo. - # 311164

9. Jo No. 18

A. (AEC) Rec. 7-19-54, Book 334, Page 256, #305707

B. (AEC) Rec. 7-19-54, Book 334, Page 257, #305708

C. Rec. 11-17-54. Bk. 339 - P. 540, Rawlins, Wyo. - # 311165

10. Jo. No. 19

A. (AEC) Dated 7-20-54, Rec. 7-24-54, Book 334, Page 419, #306018

B. (AEC) dated 3-15-54, Rec. 3-20-54, Book 330, Page 227, #301032 known as the Jebens No. 3 17

C. #2 assigned to Irving Pasternak, subject to royalty reservation, by instrument #307283, Book 335, Page 546, Rec. 8-21-54 and #308027, Book 336, Page 427, Rec. 9-7-54.

D. Rec. 11-5-54 Bk. 339 - P. 143, Rawlins, Wyo. - # 310484

11. Jo No. 20

A. (AEC) Dated 7-20-54, Rec. 7-24-54, Book 334, Page 420, #306019

B. (AEC) Dated 3-15-54, Rec. 3-20-54, Book 330, Page 226, #301031 known as the Jebens No. 2 18

C. #2 assigned to Irving Pasternak, subject to royalty reservation, by instrument #307283, Book 335, Page 546, Rec. 8-21-54, and #308027, Book 336, Page 427, Rec. 9-7-54.

D. Rec. 11-5-54 Bk. 339 - P. 144, Rawlins, Wyo. - # 310485

12. Jo No. 21

A. (AEC) dated 7-15-54, Rec. 7-19-54, Book 334, Page 258, #305709.

B. Rec. 11-17-54. Bk. 339 - P. 541, Rawlins, Wyo. - # 311166

13. Jo No. 22

A. (AEC) Dated 7-15-54, Rec. 7-19-54, Book 334, Page 259, #305710.

B. Rec. 11-17-54. Bk. 339 - P. 542, Rawlins, Wyo. - # 311167

14. Jo No. 23

14. Jo No. 23

A. (AEC) Dated 7-15-54, Rec. 7-19-54, Bk. 334, P. 260, #305711 by I. Pasternak as Jo #23.

B. (AEC) Rec. 4-26-54, Bk. 330, P. 573, #301574 as Thom Park #3 insofar as it covers approx. So. 400 ft. of Jo #23. Assigned to I. Pasternak by Instrument #308199, Rec. 9-9-54, Bk. 336, P. 529.

C. (Lode) Rec. 11-25-53, Bk. 326, P. 311, #296386 by Carle Jebbens with no claim name given, insofar as it covers a narrow strip of land in the south portion of Jo #23.

D. Assigned to I. Pasternak by Instrument #306012, Bk. 334, P. 408, Rec. 7-24-54.

E. Recorded 11-17-54 at 11:15 AM in Book 339, P. 543, Rawlins, Wyoming. No. 311168.

15. Jo No. 24

A. (AEC) Dated 7-15-54, Rec. 7-19-54, Bk. 334, P. 261, #305712, as Jo No. 24 by I. Pasternak.

B. (Lode) Rec. 11-25-53, Bk. 326, P. 311, #296386 by Carle Jebbens with no claim name given. Assigned to I. Pasternak subject to royalty, by Instrument #306012, Bk. 334, P. 408, Rec. 7-24-54. Covers substantially same lands as Jo No. 24. 19

C. Recorded 11-17-54 at 11:15 AM in Book 339, P. 544, Rawlins, Wyoming. No. 311169.

16. Jo. No. 25

A. (Lode) Rec. 11-23-53, Bk. 326, P. 259, #296265 by Charlie Dixon as Poison Wash Claim #4. Quitclaim deed to Aubrey R. Stanton by Instrument #301057, Bk. 330, P. 250, Rec. 3-20-54.

B. (AEC) Rec. 5-27-54, Bk. 332, P. 505, #303794 as Poison Wash Claim #4. Assigned to I. Pasternak by Instru. #306261, Bk. 334, P. 536, Rec. 7-30-54. #1 and #1 cover Jo No. 25 by a narrow strip in the south portion.

C. (Lode) Rec. 11-23-53, Bk. 326, P. 260, #296266, as Last Chance Claim by Cecil F. James. Quitclaim Deed to Royden L. James Sr. Instru. #302399, Bk. 331, P. 375, Rec. 4-26-54.

D. (AEC) Rec. 5-27-54, Bk. 332, P. 506, #303795 by Royden L. James St. as Last Chance. #3 and 4 cover substantially same lands as Jo No. 25. #3 and #4 assigned to I Pasternak by Instru. #306405, Bk. 335, P. 4, Rec. 8-4-54.

E. (AEC) Rec. 7-19-54, Bk. 334, P. 262, #305713 by I. Pasternak as Jo No. 25.

16. Jo No. 25 (cont'd.)

F. Recorded 11-17-54 at 11:15 AM in Book 339 Page 545, Rawlins, Wyoming. No. 311170.

17. Jo No. 26

A. (AEC) Dated 7-15-54, Rec. 7-19-54, Bk. 334, P. 263, #305714 by Irving Pasternak as Jo No. 26.

B. (Lode) Rec. 11-23-53, Bk. 326, P. 259, #296265 by Charlie Dixon as Poison Wash Claim No. 4. Quitclaim Deed by Dixon to Aubrey R. Stanton by Instrument #30105[illegible], Rec. 3-20-54, Bk. 330, P. 250.

C. (AEC) Rec. 5-27-54, Bk. 332, P. 505, #303794 by Aubrey R. Stanton as Poison Wash Claim #4. Assigned to Irving Pasternak by Instru. #306261, Rec. 7-30-54, Bk. 334, P. 536.

D. Recorded 11-17-54 at 11:15 AM in Book 339, P. 547, Rawlins, Wyoming. No. 311171.

18. Jo No. 27

A. (Lode) Rec. 11-25-53, Bk. 326, P. 312, #296387 by Earl C. Beder as Poison Wash Claim No. 5 covering North 540 ft. of Jo No. 27.

B. (AEC) Dated 3-27-54, Rec. 3-30-54, Bk. 300, P. 449, #301348 by Earl C. Beeler and Sylvia Beeler as Poison Wash Claim No. 5 covering No. 540 ft. of Jo No. 27.

C. Both assigned by Earl C. Beeler to I. Pasternak by Instru. #306263, Bk. 334, P. 542, Rec. 7-30-54. Both assigned by Sylvia Beeler by Instrument #306262, Bk. 334, P. 539, Rec. 7-30-54.

D. (AEC) Dated 7-15-54, Rec. 7-19-54, Bk. 334, P. 264, #305715 by Irving Pasternak as Jo No. 27.

E. Recorded 11-5-54 at 9:45 AM in Book 339, P. 145, Rawlins, Wyoming. No. 310486.

19. Jo No. 28

A. Jo #28 staked by Irving Pasternak (AEC) 7-15-54, Rec. 7-19-54 #305716, Bk. 334, Page 265.

B. Big John Rec. 1-3-54 Misc. Bk. 328 Page 238, #298567 assigned by S. D. Gardner and Richard W. Muir to Irving Pasternak, Book 338 at Page 293, #309723, Rec. 10-16-54.

C. Recorded 11-17-54 at 11:15 AM in Book 339, Page 548, Rawlins, Wyoming. No. 311172

20. Jo No. 29

A. Jo 29 staked by Irving Pasternak (AEC Notice) 7-15-54, Page 266, #305717, Rec. 7-19-54, Bk. 334.

B. Big John #1 Rec. 1-3-54 Misc. Bk. 328 at Page 237, #298566 assigned by S. D. Gardner and Richard W. Muir to Irving Pasternak, Book 338 at Page 293, #309723, Rec. 10-16-54.

C. Recorded 11-17-54 at 11:15 AM in Book 339, Page 549, Rawlins, Wyoming. No. 311173.

With regard to Poison Basin (North Slope) No. 8, Poison Basin (North Slope) West No. 8, Poison Basin (North Slope) No. 9, Poison Basin West (North Slope) No. 9W and Jo Nos. 10 through 22, the latest recording data has been inked in.

Should you require any additional information concerning these claims, please advise.

Very truly yours,

GARFIELD & PASTERNAK

Richard S. Hunt

Richard S. Hunt
Manager of Lands

RSH ms

## ROYALTY OBLIGATIONS

On the following page is a "type form" of the royalty commitments made by Irving Pasternak, to the original locators of various claims in the Poison Basin Group. This is submitted as an example of the form used.

All such royalty commitments are made upon this form. The example submitted herewith is filled out for the purpose of completeness of the "example".

On the page following this "type form" is a tabulation of all of the claims so concerned. This tabulation gives

(1) Name of Claim.

(2) Amount of royalty, and to whom it is to be paid.

(3) The Document No. under which it was filed in the Court House of Carbon County, Rawlins, Wyoming.

(4) The Book and Page No. under which the recording was made.

- - - - - -

The purpose of this condensation is to reduce the volume of this report, but, at the same time, to give ALL of the data required by U. S. Govt. Form MF-103, Section 3, pars. "c" and "d".

- - - - - -

Also attached is an affidavit affirming that Irving Pasternak, his associates, heirs, and assigns have transferred all right, title, and interest in the area concerned by this report to the Applicant, the Shawano Development Corp., 430 Park Avenue, New York, N. Y.

ASSIGNMENT OF MINING OR URANIUM CLAIMS

SUBJECT TO ROYALTY RESERVATION

KNOW ALL MEN BY THESE PRESENTS:

That, the undersigned [redacted],

herein referred to as "GRANTOR" (whether one or more but acting jointly and severally if more than one) in the sum of [redacted] Dollars ($ [redacted]) cash in hand received, the sufficiency of which is conclusively acknowledged by the undersigned, do(es) hereby sell, assign and grant unto Irving Pasternak, 1650 California Street, Denver, Colorado, hereinafter referred to as "GRANTEE" subject to the royalty reservation hereinafter made, all of those certain lode claims, mining claims, or uranium claims affecting lands in the County of Carbon, State of Wyoming, described and known under the following names and designations, recorded or unrecorded, as the case may be, as indicated below and, if recorded, as the case may be, as indicated below and, if recorded, as the same appear(s) in the Office of the County Clerk or Register of Deeds of said County and State under the following names and numbers:

| Claim Name and Number | Filg. No. | [redacted] Book and Page of Recording |
|---|---|---|
| [redacted] | [redacted] | Misc. Bk. [redacted] page [redacted] Dated [redacted] |

affecting lands briefly described on Exhibit "A" hereto attached either as indicated on the map attached, if any, or described by metes and bounds.

There is also granted to the "GRANTEE" all right, title and interest of the undersigned (subject to reservation hereinafter made) in and to any form of claims made by the "GRANTOR" affecting the same lands, whether the same exist in the form of lode claims, other mining claims, or uranium claims or lease applications originating under Circular 7 by the Atomic Energy Commission of the United States, (governing Notice of Lease Application under said Circular and the granting of leases by the AEC,) however the rights of the "GRANTOR" may arise or have arisen and including any rights subsequently accruing to the "GRANTOR" as to the same property out of any notices, claims or lease applications heretofore or hereafter made by the "GRANTOR."

RESERVATION AND OTHER CONDITIONS

The "GRANTOR" hereby reserves to the "GRANTOR", his heirs or assigns, a royalty of [redacted] per cent ([redacted]%) of the net proceeds received from the minerals, uranium or fissionable materials derived from said property and produced under any lode claims, mining claims or uranium claims or lease applications made by the GRANTOR or hereafter perfected by the GRANTEE upon the same lands, said percentage to be based on the net proceeds received from the smelter or mill to which such materials or minerals may be delivered, generally known as the smelter or milling returns, the amount of such royalty to be conclusively determined by the settlement sheets furnished by the purchaser of the ore.

GRANTEE is hereby authorized, directed and empowered in his own name or in the name of the undersigned for his own use and benefit to perfect said claims in any manner permitted by law so as to enable the GRANTEE, his heirs and assigns to operate said property for the production of uranium, ore or other minerals and the GRANTEE is further empowered to release or surrender all of said claims filed by the GRANTOR or made by the GRANTOR at any time on the condition that the reservation hereby made shall extend to any new claims perfected thereon by the GRANTEE in his own name, it being a condition of said release that the royalty hereby reserved shall be made a burden upon the new claim if any perfected by the GRANTEE.

All royalty settlements hereon shall be made monthly for the proceeds received from such uranium or other minerals during the preceding calendar month.

If the GRANTEE'S Attorney is of the opinion that said claims should be restaked in accordance with the requirements of the United States Atomic Energy Commission in order to comply with its requirements, restaking shall be done by the GRANTOR, if requested by GRANTEE, but at GRANTEE'S cost, immediately upon notice, and the GRANTOR, upon being furnished with the proper forms by the GRANTEE, shall, within five (5) days after demand, execute and deliver into the possession of GRANTEE a proper application to the United States Atomic Energy Commission for a lease upon the affected lands and authorize GRANTEE'S Attorney to file and prosecute the same to conclusion. If such application for lease is required and filed, then a lease from the United States Atomic Energy Commission shall be deemed requisite for satisfactory title, unless the GRANTEE shall elect to take and receive from the GRANTOR a complete and unlimited Assignment of such claim or claims and to file such application for lease in his own behalf.

In the meantime, the GRANTEE may commence mining operations on such property and the removal of ore therefrom at the GRANTEE'S sole and only expense and without liability on the part of GRANTOR to contribute thereto, subject to the GRANTEE'S obligation to make proper settlement for the royalty on the proceeds of ore as hereinafter provided.

The terms and conditions hereof shall extend to and be binding upon the heirs, executors, administrators, successors and assigns of each of the parties hereto.

WITNESS our hands and seals this the _____ day of _____, 1954.

[redacted] _____(SEAL)

_____(SEAL)

_____(SEAL)

"GRANTOR"

ACCEPTED:

RICHARD ROE

_____
"GRANTEE"

By: _____
Agent

DETAILS OF ROYALTY ON SHAWANO DEVELOPMENT CORPORATION PROPERTY AT BAGGS, WYOMING.

| CLAIM NAME | ROYALTY AMT. | TO | FILED UNDER DOCKET NO. COUNTY COURT HOUSE RAWLINS, WYOMING | BOOK & PAGE NO. | DATE |
|---|---|---|---|---|---|
| Hope #3 | 5% | LeRoy Benson (1)* | #308026 | 336, 424 | 9-7-54 |
| Hope #4 | 5% | LeRoy Benson (2) | #308026 | 336, 424 | 9-7-54 |
| Hope #5 | 5% | LeRoy Benson (3) | #308026 | 336, 424 | 9-7-54 |
| Hope #6 | 5% | LeRoy Benson (4) | #308026 | 336, 424 | 9-7-54 |
| Hope #7 | 5% | LeRoy Benson (5) | #308026 | 336, 424 | 9-7-54 |
| Hope #14 | 5% | LeRoy Benson (6) | #308026 | 336, 424 | 9-7-54 |
| Matt #2 | 5% | LeRoy Benson & Matt Weber (7) | #308028 | 336, 430 | 9-7-54 |
| Matt #3 | 5% | LeRoy Benson & Matt Weber (8) | #305644 | 334, 193 | 7-19-54 |
| Matt #4 | 5% | LeRoy Benson & Matt Weber (9) | #308028 | 336, 430 | 9-7-54 |
| | | | #306013 | 334, 411 | 7-24-54 |
| Poison Basin #5 | 5% | (10) | #308023 | 336, 412 | 9-7-54 |
| Poison Basin #6 | 5% | (11) | #308023 | 336, 412 | 9-7-54 |
| Poison Basin #13 | 5% | LeRoy Benson (12) | #308023 | 336, 412 | 9-7-54 |
| North Slope #9 | 5% | LeRoy Benson (13) | #308023 | 336, 412 | 9-7-54 |
| North Slope #9W | 5% | LeRoy Benson (14) | #308023 | 336, 412 | 9-7-54 |
| North Slope #8 | 5% | LeRoy Benson (15) | #308023 | 336, 412 | 9-7-54 |
| | | | #308057 | 336, 459 | 9-7-54 |
| North Slope #8W | 5% | LeRoy Benson (16) | #308023 | 336, 412 | 9-7-54 |
| Jo #19 | 5% | (17) | #308027 | 336, 427 | 9-7-54 |
| | | | #307283 | 335, 546 | 8-21-54 |
| Jo #20 | 5% | (18) | #307283 | 335, 546 | 8-21-54 |
| | | | #308027 | 336, 427 | 9-7-54 |
| Jo #24 | 5% | Carle Jebbens (19) | #306012 | 334, 408 | 7-24-54 |

* Refers to numbered box in Garfield & Pasternak's letter, above, in this section of this report.

GARFIELD AND PASTERNAK
OIL PRODUCERS
MILE HIGH CENTER · SUITE 1402
DENVER 2, COLORADO

February 15, 1956

Professor Paul Keating
Post Office Box No. 163
Golden, Colorado

Dear Professor Keating:

You will find enclosed an executed Affidavit which affirms the fact that Irving Pasternak conveyed to Shawano Development Corporation certain lode claims and mining claims affecting lands in the Baggs Area, Carbon County, Wyoming. This is in connection with information you requested concerning the loan.

Very truly yours,

GARFIELD AND PASTERNAK

Richard S. Hunt

Richard S. Hunt
Manager of Lands

RSH:BH
Enclosure

AFFIDAVIT

RECEIVED
FEB 27 1956

STATE OF COLORADO )
) ss.
CITY AND COUNTY OF DENVER )

IRVING PASTERNAK, being first duly sworn upon oath states:

1. That he is and was President of Baggs Uranium Corporation on July 12, 1955; that Baggs Uranium Corporation, a Delaware Corporation, sold and conveyed to Shawano Development Corporation, a Florida corporation, by assignment dated July 12, 1955, executed, sealed, and delivered, all of the following lode claims and mining claims affecting lands in Carbon County, State of Wyoming, known under the following names and designations, to-wit:

a) Poison Basin Claims (Benson) 17 in number,
b) The Margaret Claims, 28 in number,
c) The Leah Claims, 15 in number,
d) The Jo Claims, 22 in number,
e) The Hope Claims (Pasternak), 6 in number,
f) The Matt Claims (Pasternak), 4 in number,
g) The Horse Claims, 6 in number,
h) The Hope Claims (Benson), 8 in number,
i) The Matt Claims (Weber-Benson), 4 in number,
j) The Ruby Claims, 9 in number,
k) Dixon-Stanton #2 Claim, 1 claim,
l) Don Claims, 6 in number,
m) Peter Claims, 16 in number,
n) Posty Claims, 32 in number,
o) Happy Group of Claims, 24 in number,
p) Barbara Claims, 36 in number,
q) Red Creek Claims, 4 in number,

subject to royalties of Five Per Cent (5%) covering all of said claims, with the exception of Poison Wash Claim #5 on which the royalty is Ten Per Cent (10%), all as more particularly described on Exhibit "A" hereto attached consisting of nine (9) pages;

3. That Shawano Development Corporation became the owner of each and all of said claims by the aforesaid assignment dated July 12, 1955; that said claims were acquired by Baggs Uranium Corporation from Irving Pasternak who acquired the same from the original locators; that assignments affecting the same have been duly recorded in Carbon County, Wyoming; that to the best of Affiant's knowledge Shawano Development Corporation is now in possession of all of said claims and conducting operations on a portion thereof and that the original assignment is in the possession of the Shawano Development Corporation. Affiant knows of no adverse claims against any of said claims.

Irving Pasternak
IRVING PASTERNAK

Subscribed and sworn to before me this 27 day of January, 1956.

Mary O'Brady
Notary Public

My commission expires:
My Commission expires April 2, 1958

shawano DEVELOPMENT CORPORATION
430 PARK AVENUE NEW YORK PL 9-3366

RECEIVED
FEB 27 1956

February 14, 1956

Professor Paul Keating
Colorado School of Mines
Golden, Colorado

Dear Professor Keating:

Enclosed please find an original and one copy of an Affidavit signed by Mr. Guterma covering Baggs Properties in connection with DMEA Loan. Copy of this Affidavit is being sent to Dick Hunt.

With regard to Mr. Pasternak's Affidavit, it will be mailed to you directly from Denver.

Yours very truly,

SHAWANO DEVELOPMENT CORPORATION

R. J. Eveleigh, Treasurer

bkp
Encls.

cc: Dick Hunt

AFFIDAVIT

STATE OF NEW YORK )
) ss.
CITY AND COUNTY OF NEW YORK )

A. L. GUTERMA, being first duly sworn upon oath states:

1. That he is President of Shawano Development Corporation, a Florida corporation with offices at 430 Park Avenue, 19th Floor, New York City, New York;

2. That Shawano Development Corporation acquired from Baggs Uranium Corporation, a Delaware corporation, then the owner thereof, by assignment dated July 12, 1955, all right, title and interest in those certain lode claims and mining claims covering lands in Carbon County, State of Wyoming, generally known under the following names, to-wit:

a) Poison Basin Claims (Benson) 17 in number,
b) The Margaret Claims, 28 in number,
c) The Leah Claims, 15 in number,
d) The Jo Claims, 22 in number,
e) The Hope Claims (Pasternak), 6 in number,
f) The Matt Claims (Pasternak), 4 in number,
g) The Horse Claims, 6 in number,
h) The Hope Claims (Benson) 8 in number,
i) The Matt Claims (Weber-Benson), 4 in number,
j) The Ruby Claims, 9 in number,
k) Dixon-Stanton #2 Claim, 1 claim,
l) Don Claims, 6 in number,
m) Peter Claims, 16 in number,
n) Posty Claims, 32 in number,
o) Happy Group of Claims, 24 in number,
p) Barbara Claims, 36 in number,
q) Red Creek Claims, 4 in number,

subject to royalties of Five Per Cent (5%) covering all of said claims, with the exception of Poison Wash Claim #5 on which the royalty is Ten Per Cent (10%), all as more particularly described on Exhibit "A" hereto attached consisting of nine (9) pages;

3. That Shawano Development Corporation is the owner of each and all of said claims; that said claims were acquired by Baggs Uranium Corporation from Irving Pasternak who acquired the same from the original locators; that assignments affecting the same have been duly recorded in Carbon County, Wyoming; that Shawano Development Corporation is now in possession of all of said claims and conducting operations on a portion thereof; that the original assignment is in the possession of the Shawano Development Corporation; that the Affiant knows of no adverse claims against any of said claims.

A. L. GUTERMA

Subscribed and sworn to before me this the 14th day of February, 1956.

Nicholas V. Lombardo
Notary Public

My commission expires:

NICHOLAS V. LOMBARDO
Notary Public in the State of New York
No. 41-7588600
Qualified in Queens County
Certificates filed with
Queens and N. Y. County Clerks
Queens and N. Y. Registers Offices
Term Expires March 30, 1956

# PART II

# GEOLOGY

GEOLOGICAL SURVEY CIRCULAR 344

# URANIUM IN THE POISON BASIN AREA, CARBON COUNTY WYOMING

This report concerns work done on behalf of the U. S. Atomic Energy Commission and is published with the permission of the Commission.

UNITED STATES DEPARTMENT OF THE INTERIOR
Douglas McKay, Secretary

GEOLOGICAL SURVEY
W. E. Wrather, Director

RECEIVED
FEB 27 1956

GEOLOGICAL SURVEY CIRCULAR 344

# URANIUM IN THE POISON BASIN AREA, CARBON COUNTY, WYOMING

By James D. Vine and George E. Prichard

This report concerns work done on behalf of the U. S. Atomic Energy Commission and is published with the permission of the Commission.

Washington, D. C., 1954

Free on application to the Geological Survey, Washington 25, D. C.

# URANIUM IN THE POISON BASIN AREA, CARBON COUNTY, WYOMING

By James D. Vine and George E. Prichard

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## ABSTRACT

Uranium minerals were found on October 15, 1953, about 6 miles west of Baggs in the Browns Park formation of the Poison Basin area, Carbon County, Wyo. A number of small occurrences are present over an area of several square miles in secs. 4 and 5, T. 12 N., R. 92 W., and secs. 32 and 33, T. 13 N., R. 92 W. Uranophane-bearing sandstones contain as much as 3.21 percent uranium in select samples. The occurrences cannot be evaluated because their dimensions and average grade have not been determined. The presence of uranium, however, is significant because it indicates that uranium deposits may be present in the Browns Park formation and also in the underlying formations unconformably overlapped by the Browns Park.

## INTRODUCTION

The Poison Basin area is located 6 miles west of Baggs on the southeast flank of the Washakie Basin in southwestern Carbon County, Wyo. Unusually high radioactivity in the Browns Park formation of Miocene(?) age was discovered by the writers on October 15, 1953, as a result of a reconnaissance with a car-mounted recording scintillation detector. The area was investigated because of the occurrence of uranium in rocks of Miocene(?) age in the Miller Hill area, Carbon County, Wyo., about 35 miles to the northeast (Love, 1953).

Several days after the discovery of uranium, an airborne radioactivity survey was made in the immediate area by the U. S. Atomic Energy Commission,[1] and a few weeks later another airborne radioactivity survey was made of a large area in southern Wyoming, including this area, by the U. S. Geological Survey (Henderson, 1954).

The area was revisited on October 19 and 20, 1953, to collect samples, locate land corners, and map the deposits. Prichard returned to the area on November 14 with aerial photographs to map the geology. On February 7 and 8 Vine examined the localities of

[1] U. S. Atomic Energy Commission airborne anomaly location map of Carbon County, Wyo., posted in AEC offices in Denver, Colo., and Douglas, Wyo., on November 15, 1953.

See part IV of this report re "HISTORY"

the radioactivity anomalies recorded by the U. S. Geological Survey airborne radioactivity survey.

The reconnaissance of the Poison Basin area was made on behalf of the Division of Raw Materials of the U. S. Atomic Energy Commission.

## GEOGRAPHY

The Poison Basin area is a small topographic basin tributary to the Little Snake River, which drains a large region west of the Continental Divide on both sides of the Colorado-Wyoming boundary and flows across northwestern Colorado to join the Colorado River drainage system.

A small group of low hills locally known as Poison Buttes derive their name from the fact that vegetation in the area is toxic to livestock. Investigation of the vegetation and of the sandstone on which it is growing has indicated that the content of selenium, the principal toxicant, is unusually high (Beath, and others, 1946, p. 13). Because a high percentage of the selenium is in a water-soluble form, suitable precautions should be taken by persons working in the area or processing the samples to prevent the inhalation of selenium-bearing dust. Selenium-bearing dust can be a deadly poison to human beings.

The region is easily accessible by car from Baggs, Wyo., one of several ranching towns in the valley of Little Snake River. To reach the area from Baggs proceed north on State Highway 330 about 1 mile and turn west on a graveled county road. Proceed on the main traveled road about 4.5 miles to a road junction and take the right fork. Proceed another 1.5 miles to pit 1. The occurrences are located in secs. 4 and 5, T. 12 N., R. 92 W., and secs. 32 and 33, T. 13 N., R. 92 W., about 3 miles north of the Colorado border (figs. 1 and 2).

See part V

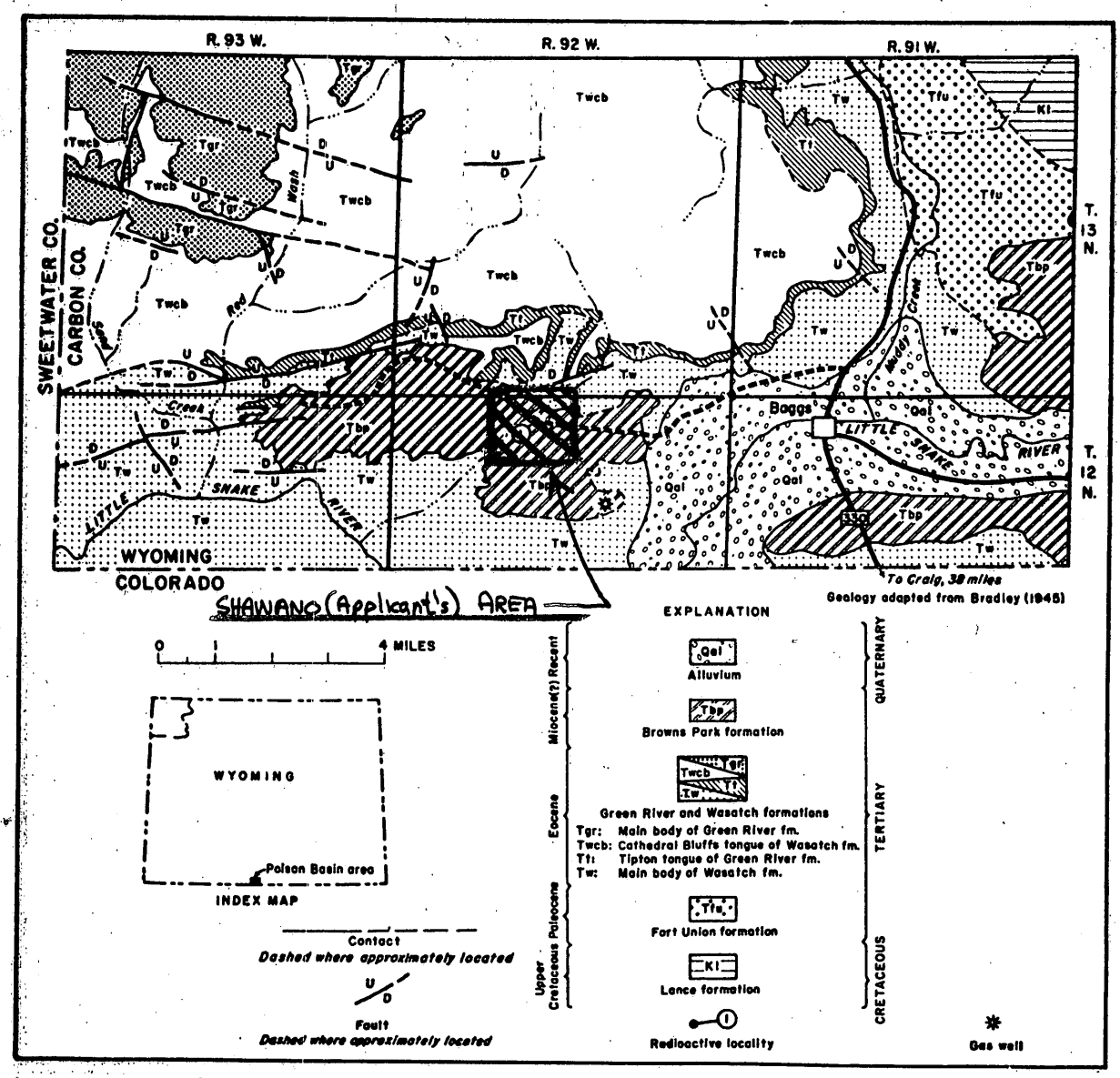


Figure 1.—Geologic map of Poison Basin and adjacent areas, Carbon County, Wyo.

The nearest railroad is the Denver and Salt Lake line at Craig, Colo. about 41 miles south of Baggs. The Union Pacific Railroad is at Creston, Wyo., about 50 miles north of Baggs. The only residents in the area live along the alluvial plain of the Little Snake River to the south. Sheep and cattle ranching are the chief industries, although several oil and gas test wells have been drilled in the vicinity.

## GEOLOGY

The Poison Basin area is a topographic basin eroded chiefly from the Browns Park formation of probable Miocene age (fig. 2). The Browns Park was deposited on an erosion surface developed on gently dipping and truncated beds of the Wasatch and Green River formations of Eocene age. These formations comprise the outer rim of the Washakie Basin, a structural depression between the Rock Springs uplift on the west and the Sierra Madre Mountains on the east. Later movement along an east-trending fault zone, which extends across the entire south side of the Washakie Basin, has folded and faulted all of these strata (Bradley, 1945). A second group of faults, which strike north or northwest, is probably younger.

Both lower and upper Tertiary igneous intrusions are found in the Elkhead Mountains of Colorado 15 to 50 miles southeast of Baggs, Wyo. (Gale, 1910). The Hahns Peak mining district, about 45 miles southeast of Poison Basin has produced gold, silver, lead, and copper from vein deposits in rhyolite, latite, and andesite porphyry (Gale, 1906).

## STRATIGRAPHY

Although no stratigraphic studies were made during this reconnaissance, the rocks exposed in this area were described by Bradley (1945) and the following descriptions are summarized chiefly from his work.

All the exposed rocks are of Tertiary age and include the Wasatch, Green River, and Browns Park formations.

### Wasatch formation

The Wasatch formation of Eocene age is the oldest rock sequence exposed in the vicinity of Poison Basin. It consists of several thousand feet of fluviatile deposits, chiefly sandy gray mudstone containing

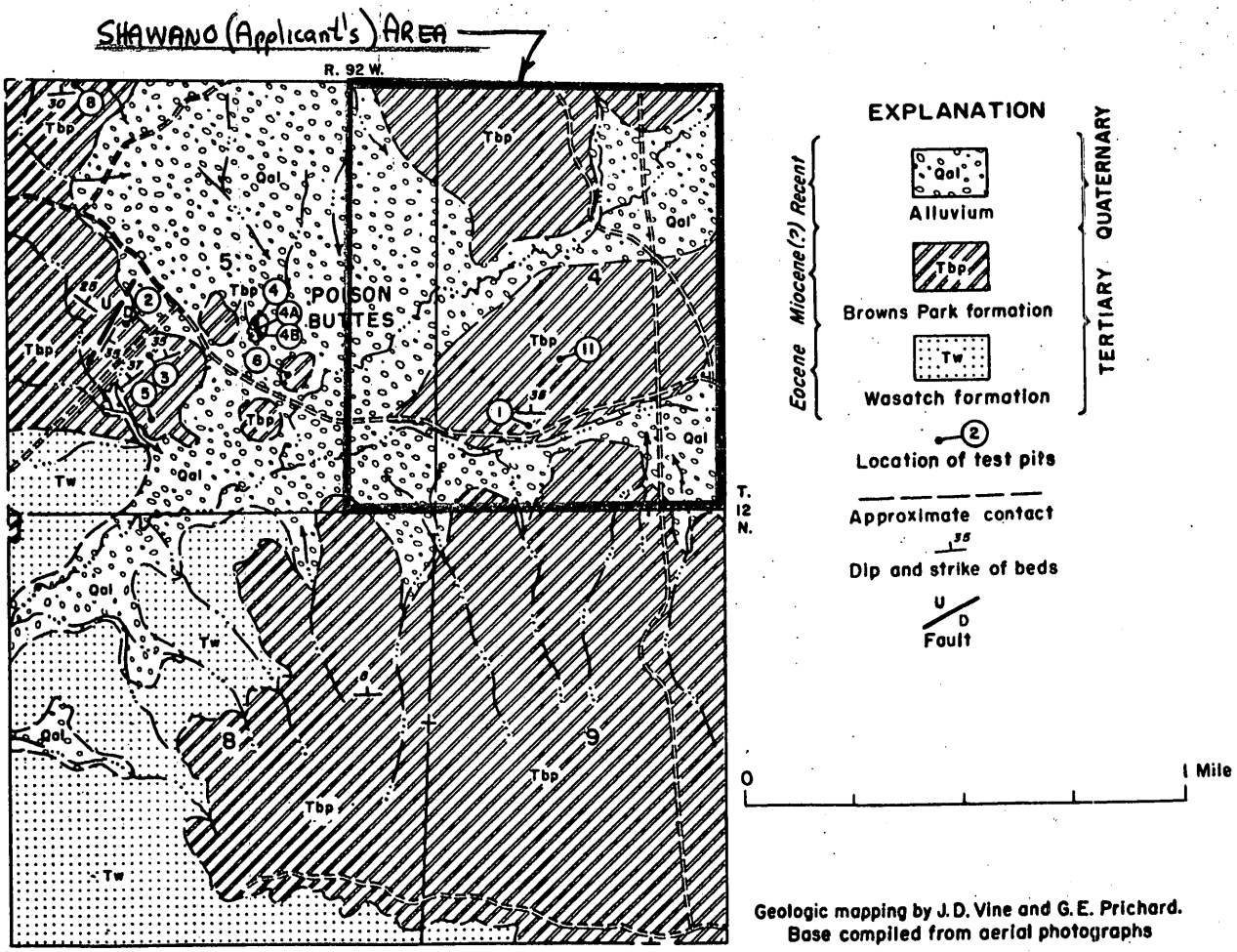


Figure 2.—Sketch map of part of Poison Basin area showing location of test pits.

irregular lenses of sandstone. The main body of the Wasatch is chiefly gray (banded with red), green, and yellow. The upper part of the Wasatch interfingers with the Green River formation and a unit of the Green River known as the Tipton tongue separates the main body of the Wasatch from its upper unit, the Cathedral Bluffs tongue. In the Poison Basin area, the Tipton tongue, although well developed to the north and west, has thinned to a feather edge. The Cathedral Bluffs tongue consists chiefly of gray mudstone, banded with red, and is probably about 1,000 feet thick.

### Green River formation

The Green River formation of Eocene age consists of lacustrine, thin-bedded marlstone, oil shale, and carbonaceous shale containing numerous fresh water fossils including fish, gastropods, and ostracods. These strata interfinger with and overlie the Wasatch formation. The Tipton tongue, which is separated from the main body of the Green River by the Cathedral Bluffs tongue of the Wasatch, is the principal unit of the Green River formation exposed in the Poison Basin area. The Tipton tongue consists chiefly of soft, brown, papery, fossiliferous shales about 75 feet thick north of Poison Basin but becomes sandy and carbonaceous, and loses its identity in the area south and west of Poison Basin.

### Browns Park formation

The Browns Park formation of probable Miocene age was deposited on an erosion surface of slightly tilted Eocene rocks. Outliers of the Browns Park formation occur along the south flank of the Washakie Basin as well as in areas to the east, south, and west. They were probably once continuous with the Browns Park formation of northwestern Colorado and northeastern Utah where the formation overlies rocks as old as pre-Cambrian at the east end of the Uinta Mountains.

At the base of the Browns Park formation is a conglomerate about 75 feet thick consisting largely of quartzite pebbles and cobbles in a sandy matrix. Above the conglomerate is a thick series of soft, white, highly crossbedded sandstone and tuffaceous sandstone. This material weathers into a loose sand that covers much of the Poison Basin area. Beds of dense quartzite form the top of the formation exposed in this area. Bradley (1936) states that the lower part of the Browns Park formation along the south side of the Washakie Basin consists largely of glassy tuffs, although this lithology was not observed during the reconnaissance of the Poison Basin area. No figures are available on the total thickness of the Browns Park formation and although more than 1,000 feet may be present elsewhere the top has been subjected to erosion in the Poison Basin area and it is estimated that only about 300 feet of strata remain.

Bradley (1936, p. 182-184) discusses the origin of the Browns Park formation and considers that the rounded and frosted sand grains, prominent crossbedding, and wind-faceted cobbles are probable evidence that the material was wind blown. In the Poison Basin area widely divergent strike and dip readings taken on a few isolated exposures of crossbedded sandstones in the Browns Park formation make structural interpretation difficult.

## URANIUM OCCURRENCES

Sandstone containing as much as 3 percent uranium occurs in the Browns Park formation in isolated exposures on a group of low hills known as Poison Buttes and in the surrounding area in secs. 4 and 5, T. 12 N., R. 92 W., and secs. 32 and 33, T. 13 N., R. 92 W., 6th principal meridian (fig. 3). Uranophane, $Ca(UO_2)_2Si_2O_7 \cdot 6H_2O$, has been identified by R. S. Jones, W. F. Outerbridge, and A. J. Gude 3d as the principal uranium mineral in three select samples. Schroeckingerite, $NaCa_3(UO_2)(CO_3)_3(SO_4)F \cdot 10H_2O$, has been identified as the principal uranium mineral in one sample. These minerals are known at other nearby localities in Wyoming. Uranophane is the principal uranium mineral in the Miller Hill area, Carbon County, Wyo. (Vine and Prichard, 1953). Schroeckingerite is the principal uranium mineral that occurs along Lost Creek in the Great Divide Basin, Sweetwater County, Wyo. (Sheridan and others, 1952). Samples for analysis were collected from 11 shallow pits dug at several places of high radioactivity on Poison Buttes and adjacent hills. The location of most of these pits are shown on figure 2. All analyses are listed in table 1.

Pit 1. Radioactive loose brown sand lies on the bedrock for several hundred feet along the north side of the main east-trending road. About 18 inches of brown, friable, medium-grained sandstone containing fracture coatings and disseminations of uranophane was exposed in a pit dug at a place of high radioactivity. Sample VW3-91 is an 18-inch channel sample of this sandstone and contains 0.43 percent equivalent uranium and 0.39 percent uranium. Channel samples, VW3-470, VW3-471, and VW3-472, through 6 feet of the radioactive zone contain an average of 0.068 percent equivalent uranium, but only 0.016 percent uranium. The most radioactive part of the rock consists of a dark-brown lens of sandstone about 2 inches thick containing fracture coatings of uranophane. Sample VW3-89 was collected from this lens and contains 0.86 percent equivalent uranium and 0.90 percent uranium. An unidentified black mineral colors a 1- to 2-inch streak through the radioactive zone. A grab sample from this black streak, sample VW3-401, contains 0.5 percent equivalent uranium and 0.69 percent uranium. A second sample from this same zone, VW3-473, contains 1.5 percent equivalent uranium and 1.31 percent uranium.

Directly overlying the sandstone in pit 1 is a bed of medium- to coarse-grained crossbedded sandstone about 8 feet thick that appears to strike east and dips about 35° north.

Pit 2. An 18-inch zone of reddish-brown radioactive sandstone was uncovered at pit 2. No yellow uranium minerals were observed. A 12-inch channel sample from this pit, sample VW3-94, contains 0.024 percent equivalent uranium and 0.004 percent uranium. A grab sample from the most radioactive part of the same pit contains 0.25 percent equivalent uranium and 0.011 percent uranium. The sandstone exposed in the pit appears to dip less than 5° but a nearby outcrop of sandstone at the top of the hill dips about 35° and strikes about N. 30° E.

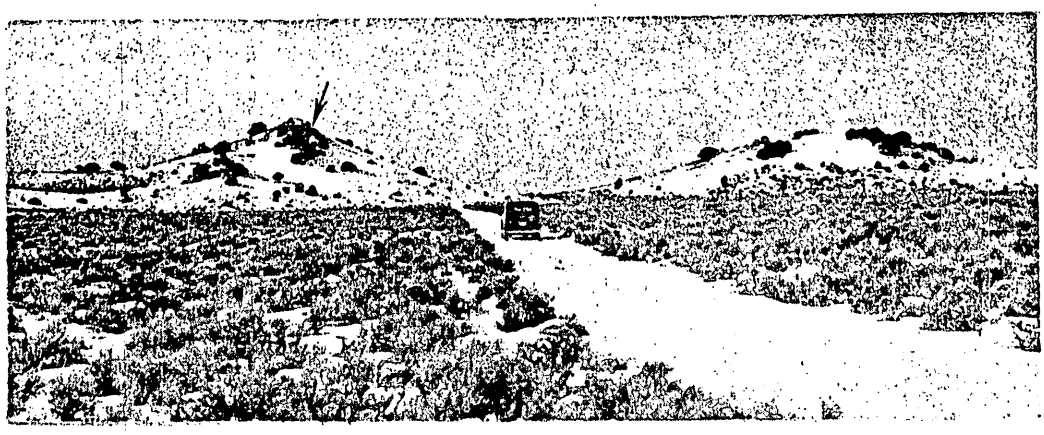

Figure 3.—Close view of Poison Buttes looking southwest. Arrow indicates approximate location of pit 3.

Pit 3 was dug in a highly radioactive zone which appeared to be parallel to the dip of the beds on the side of a hill. Digging uncovered a reddish-brown and greenish-gray, friable sandstone. The greenish tint in part of the sand may be due to disseminated uranium minerals. A 12-inch channel sample from this pit, sample VW3-95, contains 0.7 percent equivalent uranium and 0.69 percent uranium.

Pit 4. Soft, friable, light greenish-gray, massive sandstone at the top of a small hill is highly radioactive about 6 inches below the surface. The greenish tint of the sandstone may be due to disseminated uranium minerals. A 12-inch channel sample from this zone, sample VW3-96, contains 0.1 percent equivalent uranium and 0.018 percent uranium.

Pit 4A was dug in a highly radioactive zone about 25 feet southeast of pit 4 on the same hill. Friable sandstone in the pit contains fracture coatings of yellow uranophane. A sample, VW3-97, of selected yellow-stained sandstone fragments contains 1.5 percent equivalent uranium and 3.21 percent uranium. This sample contains the highest percent uranium of any of the samples collected from the Poison Basin area.

Pit 4B, on the same hill as pits 4 and 4A, was dug about 50 feet southeast of pit 4. This pit uncovered a 2-inch thick lens of radioactive, reddish-brown sandstone, estimated to be about 15 feet stratigraphically lower than the sandstone sampled in pit 4A. A grab sample, VW3-98, collected from this lens contains 0.13 percent equivalent uranium and 0.027 percent uranium.

Pit 5 was dug along a zone of moderately radioactive, light-gray sandstone similar in appearance to that encountered in pit 4. A 12-inch channel sample, VW3-99, from this pit contains 0.037 percent equivalent uranium and 0.021 percent uranium. A grab sample, VW3-474, from the same pit shows a trace of unidentified yellow mineral. It contains 0.39 percent equivalent uranium and 0.26 percent uranium.

Pit 6. A fine-grained sandstone with a pale yellowish tint was uncovered in this pit. The yellowish stain may be due to a uranium mineral disseminated through the matrix of the sandstone. A 6-inch channel sample, VW3-400, from this sandstone contains 0.34 percent equivalent uranium and 0.016 percent uranium.

Pits 7-11 were located and sampled in February 1954, after the area had been prospected by claim holders. Only pits 8 and 11 fall within the area shown on fig. 2.

Pit 7was dug in a highly radioactive zone 2 feet in diameter. A 12-inch channel sample from this pit, VW3-475, contains 0.052 percent equivalent uranium, and 0.013 percent uranium. The pit is located about 1,200 feet north of the quarter corner between sec. 32, T. 13 N., and sec. 5, T. 12 N., R. 92 W.

Pit 8. A bulldozer trench about 75 feet long and 6 feet deep was dug in essentially barren sandstone except for one small mineralized zone at its southern end. On the east wall of the trench and about 3 feet below the ground surface, a yellow fluorescent mineral occurs in the sandstone. A 12-inch channel sample, VW3-476, of the mineralized zone contains 0.033 percent equivalent uranium, and 0.017 percent uranium. The mineral has been identified as schroeckingerite.

Pit 8A is located about 300 feet north of pit 8. A grab sample, VW3-477, of brown sandstone from the pit contains 0.018 percent equivalent uranium and 0.004 percent uranium.

Pit 9, about 3 feet deep, is located about 650 feet north-northeast of pit 8. Three channel samples, VW3-478, VW3-479, and VW3-480, were collected to represent the 3-foot interval of exposed sandstone. The average percent equivalent uranium content of these samples is about 0.1, but the average uranium content is only 0.087 percent.

Pit 10. A bulldozer trench about 10 feet deep was dug about 450 feet northeast of the northwest corner of sec. 4, T. 12 N., R. 92 W. At the bottom of the bulldozer trench a 3-foot hole was dug and a channel sample collected, VW3-481. This sample,

Table 1.—Analyses of samples collected from the Poison Basin area

| Pit no. | Field no. | Lab. no. | Equivalent uranium (percent) | Uranium (percent) | $V_2O_5$ (percent) | As (ppm) | Se (ppm) | Description |
|---|---|---|---|---|---|---|---|---|
| 1 | VW3-89 | D98776 | 0.86 | 0.90 | < 0.05 | 250 | 30 | Grab sample. Dark-brown uranophane-bearing sandstone. |
| 1 | VW3-91 | D98777 | .43 | .39 | < .08 | 200 | 20 | 18 inches. Brown sandstone. |
| 1 | VW3-401 | D99839 | .50 | .69 | ---- | ---- | ---- | Grab sample. Black sandstone. |
| 1 | VW3-470 | 204323 | .026 | .004 | ---- | ---- | ---- | 24 inches. Top of 6 feet of sandstone. |
| 1 | VW3-471 | 204324 | .14 | .020 | ---- | ---- | ---- | 24 inches. Next 2 feet sandstone. |
| 1 | VW3-472 | 204325 | .039 | .025 | ---- | ---- | ---- | 24 inches. Bottom 2 feet sandstone. |
| 1 | VW3-473 | 204325 | 1.5 | 1.31 | ---- | ---- | ---- | Grab sample. Black sandstone. |
| 2 | VW3-93 | D99831 | .25 | .011 | .08 | 250 | 15 | Grab sample. Reddish-brown sandstone. |
| 2 | VW3-94 | D99832 | .024 | .004 | .06 | 150 | 12 | 12 inches. Reddish-brown sandstone. |
| 3 | VW3-95 | D99833 | .70 | .69 | .16 | ---- | ---- | 12 inches. Brown and green sandstone. |
| 4 | VW3-96 | D99834 | .10 | .018 | .13 | 50 | 40 | 12 inches. Greenish-gray sandstone. |
| 4A | VW3-97 | D99835 | 1.5 | 3.21 | .10 | 100 | 80 | Grab sample. Uranophane-bearing sandstone. |
| 4B | VW3-98 | D99836 | .13 | .027 | .11 | ---- | ---- | Grab sample. Reddish-brown sandstone. |
| 5 | VW3-99 | D99837 | .037 | .021 | .08 | ---- | ---- | 12 inches. Gray sandstone. |
| 5 | VW3-474 | 204327 | .39 | .26 | ---- | ---- | ---- | Grab sample. Brown sandstone. |
| 6 | VW3-400 | D99838 | .34 | .016 | .08 | ---- | ---- | 6 inches. Yellowish sandstone. |
| 7 | VW3-475 | 204328 | .052 | .013 | ---- | ---- | ---- | Grab sample. Brown sandstone. |
| 8 | VW3-476 | 204329 | .033 | .017 | ---- | ---- | ---- | 12 inches. Schroeckingerite-bearing sandstone. |
| 8A | VW3-477 | 204330 | .018 | .004 | ---- | ---- | ---- | Grab sample. Brown sandstone. |
| 9 | VW3-478 | 204331 | .073 | .016 | ---- | ---- | ---- | 12 inches. Top foot of 3 feet sandstone. |
| 9 | VW3-479 | 204332 | .19 | .19 | ---- | ---- | ---- | 12 inches. Next foot sandstone. |
| 9 | VW3-480 | 204333 | .051 | .056 | ---- | ---- | ---- | 12 inches. Bottom foot sandstone. |
| 10 | VW3-481 | 204334 | .008 | .004 | ---- | ---- | ---- | 36 inches. Brown sandstone. |
| 11 | VW3-482 | 204335 | .073 | .019 | ---- | ---- | ---- | 12 inches. Brown sandstone. |

representing a 3-foot zone, contains 0.008 percent equivalent uranium, and 0.004 percent uranium.

Pit 11. A limonite-stained sandstone at the top edge of a bulldozer trench about 900 feet northeast of pit 1 is highly radioactive. A 1-foot channel sample, VW3-482, of this sandstone contains 0.073 percent equivalent uranium and 0.019 percent uranium.

All the pits were dug on or near the tops of low hills where the bedrock is fairly well exposed. Radioactivity is relatively high throughout the area, but it is not known whether the uranium minerals follow stratigraphic zones which might be continuous beneath soil cover between the hills. The dominant structural trend throughout the region appears to be east-west but locally the attitude of the rocks is widely divergent from this general trend. Some of this divergence may be due to large-scale crossbedding similar to that along the south side of Washakie Basin which Bradley (1936, p. 182) describes. Erratic dips, however, may also be structural in origin. Some of the zones of radioactive, friable sandstone may be localized along faults or other structural features. Detailed geologic mapping, stratigraphic studies, and extensive trenching will probably be necessary to determine the structure.

The radioactive disintegration products of uranium are not in balance with the uranium contained in most of the samples collected. This is shown by the U:eU ratio, which ranges from 2.1:1 to 1:22.7 for the samples collected. This probably indicates a relative instability of the uranium or its radioactive disintegration products in the present environment.

## ORIGIN OF THE URANIUM

The occurrence of uranium in the Poison Basin area is similar to several other areas in Wyoming including the Pumpkin Buttes (Troyer and others, 1953), Red Desert (Sheridan and others, 1952, and Masursky and Pipiringos, 1953), Miller Hill (Love, 1953), and Gas Hills (unpublished rept., Love, 1953) areas. They all contain surface deposits of secondary (yellow) uranium minerals in Tertiary strata remote from igneous activity but within or below Tertiary tuffaceous sandstones. In each instance the origin of the uranium is in doubt but most geologists favor an epigenetic origin, that is, they believe uranium was deposited at the present site by ground-water solutions passing through the rock long after the rock itself was deposited. The nature and origin of the ground-water solutions is a point of controversy. Some believe that the solutions were hydrothermal and ascended from a hidden source deep within the earth. According to this hypothesis various minerals in solution are deposited in a sequence depending on their solubility as the temperature and pressure of the solution decrease toward the earth's surface. Others believe that descending meteoric waters percolating through Tertiary tuffaceous sandstones that contain disseminated uranium have redistributed and concentrated uranium at certain favorable places. The locus of concentration may be determined by a combination of several factors including (1) chemical reactions with the rocks and (2) rate and direction of flow of the solutions as determined by structural features and permeability of the rocks.

Much more study will be required before a definite statement is warranted regarding the origin of the uranium in the Poison Basin area. However, before accepting any hypothesis it would be well to consider the following: (1) The Poison Basin area is at least 15 miles from known igneous activity and 45 miles from the Hahns Peak mining district, though situated adjacent to an east-trending fault zone which could have provided access to ground waters of relatively deep origin. (2) Uranium occurs within a sequence of rocks characterized by material of volcanic origin. (3) No features unequivocally characteristic of hydrothermal deposits were observed. (4) The similarities between the Poison Basin area and several other widely scattered occurrences in Wyoming suggest a large uraniferous province. A single hidden source adequate to supply hydrothermal solutions over that large an area seems improbable as does also the requisite number of hidden sources if each area is independent. In contrast, there was a tremendous volume of volcanic debris spread over Wyoming and most of the adjacent states during middle and late Tertiary time, more than adequate to supply the uranium contained in these scattered occurrences.

## SIGNIFICANCE OF THE POISON BASIN AREA IN THE SEARCH FOR URANIUM

The occurrence of uranium minerals in the Browns Park formation of the Poison Basin area is the second reported occurrence in this formation, the first being in the Browns Park formation of Miocene(?) age in the Miller Hill area, about 35 miles to the northeast of Poison Basin (Love, 1953). There is some doubt, however, regarding the correlation of the rocks in the two areas, and it is possible that the uranium in the Miller Hill occurrences may be in a slightly younger formation. Nevertheless, the occurrance of uranium minerals in the Browns Park formation indicates that the large area covered by this formation in northwestern Colorado and adjacent parts of Wyoming and Utah can now be considered as favorable for prospecting. Similarly, although no uranium is yet known in the strata directly underlying the Browns Park in the Poison Basin area, it seems possible that uranium may have been leached from tuffaceous sandstone and redeposited at favorable places in the older rocks. A map by Bradley (1936, pl. 34) shows what he believes to be the restored surface on which the Browns Park formation was deposited and this map should provide a useful guide to prospecting in areas only recently stripped of the Browns Park as well as in areas where the formation is present.

The occurrence of uranium in the Poison Basin area coincides remarkably with an area known to be high in selenium content (Beath, and others, 1946, p. 13). The association of the two elements is probably not due to chemical combination in a specific mineral but probably is best explained by a common origin. Selenium indicator plants have been useful guides to uranium prospecting in many areas and although the two elements do not always occur together, the association may be sufficiently common to continue prospecting for uranium in other areas of known high selenium content.

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# PART III

# ENGINEERING

VALID LOCATIONS This group of claims known as the Poison Basin Group is oriented on N-S, E-W boundaries, and the claim-boundaries are contiguous. On each claim a bulldozed "Discovery" has been established on it, the location notice established in this cut, and the location certificate filed in the Carbon County Court House, at Rawlins, Wyoming.

Every corner post of every claim has been set according to the Mining Laws and requirements of the Federal Code, and of the Wyoming requirements.

Every discovery is a "valid" discovery of potential mineral wealth on every claim in this group. There is measurable and a promising degree of radioactivity throughout this group. The group has been established over an area of the Browns Park Formation.

This formation is essentially a sand-dune, which is the most thoroughly-mixed type of deposit possible. ALL of these claims are located on Browns Park, and hence a valid "discovery" could be made at any convenient location.

The above statement that the Browns Park is "thoroughly mixed" does NOT imply that it is UNIFORMLY of economic value, nor that there are no localized concentrations of Uranium-bearing salts and minerals in it. But it DOES mean that there are sufficient "above-background anamolies" over the area concerned in this report, to establish a valid "discovery" at almost any desired point.

This preliminary field work has been done.

THE CO-ORDINATE FRAMEWORK

On the attached claim map there has been established at the Southwest corner of Hope #3, an arbitrary-point on the ground. This point is marked on the ground by a monument firmly set and marked as the reference point of the "Shawano Poison Basin Group of Claims." It is 6000' East and 6000" North, in the co-ordinate system of this group of claims.

All proposed work on the entire area owned or controlled by the Shawano Development Corporation in the Poison Basin area is referred to this point.

THE DRILLING PATTERN

Forty-one contiguous claims have been selected for exploration in this report. These 41 claims completely surround a group of six claims from which substantial production has been obtained, in August thru September, 1955.

The drilling pattern is a checkerboard design of 4-1/4" drill holes, on 100 ft. centers, parallel to the boundaries of each claim.

On this pattern, the proposed drill holes are <u>not closer than 100 ft. to the boundaries of any given claim</u>. TO WIT: A claim is 600 ft. wide and 1500 ft. long. The proposed drilling pattern on each claim is 400 ft. wide and 1300 ft. long. This means an exploration checkerboard of 0-1-2-3-4- (five holes wide) by 0-1-2---------13 (fourteen holes long) to a total of 70 holes per claim; and to a grand total of 70 holes for each of the 41 claims concerned in this report.

THIS IS A SCHEMATIC DIAGRAM SHOWING THE NAMES AND RELATIVE POSITION OF THE "POISON BASIN" GROUP OF CLAIMS IN CARBON COUNTY WYOMING. (NOT TO SCALE!).

| | | | | |
|---|---|---|---|---|
| MATT #6 | MATT #5 | | | |
| LEAH #22 | MATT #4 | MATT #2 | JO #21 | JO #18 |
| " #21 | " #3 | " #1 | " #22 | " #17 |
| " #20 | North Slope #9W | North Slope #9 | " #23 | " #16 |
| " #19 | " #8W | " #8 | " #24 | " #15 |
| Hope #7 | Hope #14 | Poison Basin #13 | " #25 | " #14 |
| " #6 | Poison Basin #11 | " #12 | " #26 | " #13 |
| " #5 | " #9 | " #10 | " #27 | " #12 |
| " #4 | " #7 | " #8 | " #28 | " #11 |
| " #3 | " #5 | " #6 | " #29 | " #10 |

6000N

6000E

**The heavily outlined area above, including Poison Basin #7, #8, #9, #10, #11, and #12 were in production August-October, 1955, and are NOT part of this Application, but the geological data obtained from them IS part of this report.**

Co-ordinates of the Southwest Corner of each claim in the Poison Basin Group, western Carbon County, Wyoming.

| Claim Name | Co-ordinates East | Co-ordinates North |
|---|---|---|
| Hope #3 | 6000 | 6000 (assumed). |
| Hope #4 | 6000 | 6600 |
| Hope #5 | 6000 | 7200 |
| Hope #6 | 6000 | 7800 |
| Hope #7 | 6000 | 8400 |
| Leah #19 | 6000 | 9000 |
| Leah #20 | 6000 | 9600 |
| Leah #21 | 6000 | 10200 |
| Leah #22 | 6000 | 10800 |
| Poison Basin #5 | 7500 | 6000 |
| Hope #14 | 7500 | 8400 |
| North Slope #8W | 7500 | 9000 |
| North Slope #9W | 7500 | 9600 |
| Matt #3 | 7500 | 10200 |
| Matt #4 | 7500 | 10800 |
| Poison Basin #6 | 9000 | 6000 |
| Poison Basin #13 | 9000 | 8400 |
| North Slope #8 | 9000 | 9000 |
| North Slope #9 | 9000 | 9600 |
| Matt #1 | 9000 | 10200 |
| Matt #2 | 9000 | 10800 |
| Jo #29 | 10500 | 6000 |
| Jo #28 | 10500 | 6600 |
| Jo #27 | 10500 | 7200 |
| Jo #26 | 10500 | 7800 |
| Jo #25 | 10500 | 8400 |
| Jo #24 | 10500 | 9000 |
| Jo #23 | 10500 | 9600 |
| Jo #22 | 10500 | 10200 |
| Jo #21 | 10500 | 10800 |
| Jo #10 | 12000 | 6000 |
| Jo #11 | 12000 | 6600 |
| Jo #12 | 12000 | 7200 |
| Jo #13 | 12000 | 7800 |
| Jo #14 | 12000 | 8400 |
| Jo #15 | 12000 | 9000 |
| Jo #16 | 12000 | 9600 |
| Jo #17 | 12000 | 10200 |
| Jo #18 | 12000 | 10800 |
| Matt #6 | 6900 | 10700 |
| Matt #5 | 8400 | 10700 |

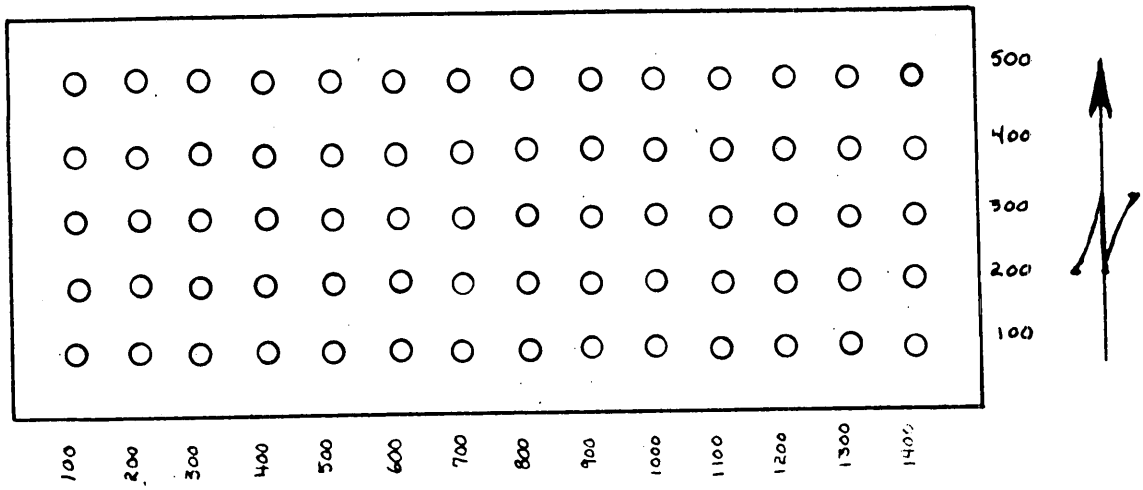
This drilling pattern leaves an unexplored strip, an area 200 ft. wide between the 1500 ft. side of each pair of contiguous claims.

It is the Applicant's intent to drill out this 1500 ft. row of holes, and the corresponding row of holes on the short (600 ft.) side of each claim.

Please refer to the sketch on the following page.

# TYPE DRILLING PATTERN

CLAIM NAME _____




Co-ordinates

| East | North | Depth | Data |
|---|---|---|---|
| 100 | 100 | | |
| 100 | 200 | | |
| 100 | 300 | | |
| 100 | 400 | | |
| 100 | 500 | | |
| 200 | 100 | | |
| 200 | 200 | | |
| 200 | 300 | | |
| 200 | 400 | | |
| 200 | 500 | | |
| 300 | 100 | | |
| 300 | 200 | | |
| 300 | 300 | | |
| 300 | 400 | | |
| 300 | 500 | | |
| 400 | 100 | | |
| 400 | 200 | | |
| 400 | 300 | | |
| 400 | 400 | | |
| 400 | 500 | | |
| 500 | 100 | | |
| 500 | 200 | | |
| 500 | 300 | | |
| 500 | 400 | | |
| 500 | 500 | | |
| 600 | 100 | | |
| 600 | 200 | | |
| 600 | 300 | | |
| 600 | 400 | | |
| 600 | 500 | | |
| 700 | 100 | | |
| 700 | 200 | | |
| 700 | 300 | | |
| 700 | 400 | | |
| 700 | 500 | | |

Co-ordinates

| East | North | Depth | Data |
|---|---|---|---|
| 800 | 100 | | |
| 800 | 200 | | |
| 800 | 300 | | |
| 800 | 400 | | |
| 800 | 500 | | |
| 900 | 100 | | |
| 900 | 200 | | |
| 900 | 300 | | |
| 900 | 400 | | |
| 900 | 500 | | |
| 1000 | 100 | | |
| 1000 | 200 | | |
| 1000 | 300 | | |
| 1000 | 400 | | |
| 1000 | 500 | | |
| 1100 | 100 | | |
| 1100 | 200 | | |
| 1100 | 300 | | |
| 1100 | 400 | | |
| 1100 | 500 | | |
| 1200 | 100 | | |
| 1200 | 200 | | |
| 1200 | 300 | | |
| 1200 | 400 | | |
| 1200 | 500 | | |
| 1300 | 100 | | |
| 1300 | 200 | | |
| 1300 | 300 | | |
| 1300 | 400 | | |
| 1300 | 500 | | |
| 1400 | 100 | | |
| 1400 | 200 | | |
| 1400 | 300 | | |
| 1400 | 400 | | |
| 1400 | 500 | | |

STRATIGRAPHIC "TARGET" A "sand dune" doesn't have stratigraphic boundaries, beyond the base upon which it moves, with the vagaries of the wind and the climatic cycles of geologic time. Physically it is highly porous, and open to circulation of water from rain and snow from above. It is equally subject to "internal washing" from below by springs, or deeper source water. Chemically and physically a score of variables may have entered into the momentary result of any given area as we find it, today.

Such thinking is necessary for a dune-type of deposits, particularly re "stratigraphic targets", for a drilling program the depth of hole in which is NECESSARY BUT SUFFICIENT.

Therefore, in this particular case, the "stratigraphic target" is based upon the Applicant's experience.

EXPERIENCE The Applicant has drilled more than 200 holes on this area. These have all been within the boundaries of the six claims NOT included in this report, but which claims are surrounded by the area discussed herein.

A number of these drill holes has gone down to the "Wasatch" basement, (approximately 300 ft.).

So far, there has been no discovery of mineralization of any interest whatever, beyond 105 ft. of drilling depth. On the six claims upon which these 200 holes have been drilled, important ore bodies have been discovered and blocked out, up to 100 ft.

THEREFORE, I respectfully submit that the drilling depth

(stratigraphic target), be established as 105 ft., for 70 holes on each of the 41 claims included in this report.

This estimate is summarized later.

SAMPLING The uranium-bearing ore deposits of the Browns Park Formation, in the area concerned by this report, are badly "out of equilibrium."

TO WIT: The radiometric assays and the chemical assays are violently apart, and in both directions.

The principal mineral species are Uranophane, Schroeckingerite, and native Selenium. In fact, this particular area was the original discovery locality of the latter mineral.

The completely mechanically-mixed nature of this sand-dune area, which contains secondary uranium minerals, seriously "out of equilibrium", makes this problem of sampling-ore one of the highest order of importance.

The production from the nucleus-area (claims shown on the accompanying map) (Poison Basic Nos. 7-8-9-10-11-12) has come from the highest order of on-the-ground supervision. Colorimetric evidence has been the most important field-control, for selection of "ore," or "not ore." About $34,000 gross receipts came from this nucleus-area, under close field supervision, August-September, 1955, inclusive.

# PART IV

# HISTORY

PAUL H. KEATING
MINING ENGINEER

# PART IV

## HISTORY

This portion of this document does not concern the "DMEA" or allied agencies. It is included here simply as a matter of historical record for whatever current or future interest may appear.

"The story" is, that one LeRoy Benson was digging a post-hole on the area concerned, and dug up some bright yellow "dirt". That bright-yellow-dirt was identified as Uranophane, and Schroeckengerite, --- all uranium-bearing minerals. This created "drama" for the press, and it was well exploited.

The area was "flown" with scintillometers; examined by experts, and continued in a state of wishful-thinking flux for a year or more.

THEN, it was brought to the attention of Irving Pasternak (1402 Mile-Hi Center, Denver, Colorado). Pasternak assigned a top-flight member of his staff to "put this area together". That field man was one Richard S. Hunt, who is still on Pasternak's staff.

Hunt did "put the area together", on the ground and in the books, (of Carbon County Court House). He (Hunt) set out the corners, established the discovery cuts, posted the notices of discovery on the ground, and filed all these data in the books of Carbon County, Wyoming, at Rawlins. He also cleared title by purchase or an agreement (in recorded documents) for all of the area concerned in this report.

In the poisonous-forage acreage of "Poison Basin", --- there is no imaginable reason for "digging a post-hole". The fact is that somebody saw a return-trip, or two or three, over that particular area, by an exploration-plane; and that somebody decided it was worth staking out. So, somebody staked out parts of it. The "post-hole" angle made good drama for headlines and by-lines, but it falls apart under close scrutiny, re "title".

IT ADDS UP TO THIS: As of January, 1956, the Shawano Development Corporation holds clear title to the claims discussed in this report, data for which is submitted herewith in Part I.

The actual technical history of the area is described on the first page or two of U.S.G.S. Circular 344 (1954), which is bound herewith.

Summary of Production from the Poison Basin
Claims (Nos. 7-8-9-10-11-12), near Baggs,
Carbon County, Wyoming, August-October, incl. 1955

The following data is taken from settlement sheets of the Union Carbide Nuclear Company, at Rifle, Colorado, and covers the period from August 1 to November 5, 1955. (These settlement sheets do not lend themselves to photographic reproduction, hence this typed summary. Settlements were made to "St. Michaels College Foundation, Inc., Shawano Operation, Baggs Property". This is an operating contractor in charge of actual production over this period).

| Date of Settlement | Period Covered | Dry Tons | Ave. % $U_3O_8$ * | Gross Settlement** |
|---|---|---|---|---|
| 8/19/55 | 8/1-8/15/55 | 37.6 | 0.33 | $ 1341.51 |
| 9/7/55 | 8/16-8/31/55 | 203.5 | 0.32 | 6432.24 |
| 10/6/55 | 9/1-9/28/55 | 224.5 | 0.21 | 26177.30 |
| 11/5/55 | 11/5/55 | 12.9 | 0.22 | 317.76 *** |
| | 8/1 - 11/5/55 | 478.5 | 0.26 | $34268.81 |

* 2450 lbs. of $U_3O_8$ were produced, average 0.26%

** This amount includes all credits, development, Transporation up to 100 miles, and excess premium over 4 lbs./ton. There is also included a total of 618 lbs of $V_2O_5$ from this total tonnage of 478.5, (about $190 in value).

*** Operations were suspended with this shipment, due to bad weather that set in about November 1, 1955.

- - - - - - -

PLEASE NOTE: The area and claims from which this production record is presented IS NOT PART OF THE AREA UPON WHICH THIS DMEA APPLICATION IS MADE. HOWEVER, the above production came from a group of the six Poison Basin claims listed in the caption above. THE AREA CONCERNED IN THIS APPLICATION COMPLETELY SURROUNDS these six producing claims, and it is upon this surrounding area that the Applicant is seeking aid for Exploration.

# PART VI

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# ESTIMATE OF COST

## PART VI

## ESTIMATE OF COSTS

(The following tabulation duplicates data attached to Form MF-103 to some degree. However, additional information is included in this Estimate, as part of the separate "Report" data requested under 4 (c), on Form MF-103).

1. Forty-one claims are concerned in this Application. These claims are laid out like a group of dominoes, per the schematic diagram attached. (See Part I, page 4).

2. Each claim's lode-line is East-West.

3. There is a "nucleus" group of claims which is completely surrounded by the area concerned in this report and Application. This "nucleus" group consists of claims "Poison Basin, Nos. 7-8-9-10-11-12".

   These six claims total about 120 acres, upon which exploration, development, and production experience are the Applicant's justification for requesting DMEA assistance for exploring these 41 claims.

4. THIS APPLICATION concerns an area that completely surrounds the above six claims.

- - - - - - - - - - -

| | | | |
|---|---|---|---|
| I | Estimate of drilling: 70 holes, 105 ft. deep, on each of 41 contiguous claims, to a total of 301,350 ft., at $1.33/ft. | | $ 401,800.00 |
| | Bulldozing drill sets, 2000 hrs, @ $7.50/hr. | | 15,000.00 |
| II | Supervision, | | |
| | Supt., 2 years @ $500/ mo. | $ 12,000 | |
| | Accounting, $40/wk. 104 wks. | 4,160 | |
| | Eng'r'g., mapping, reports, (preparation) | 9,600 | |
| | Consultants (e.g. Beath et al) | 2,000 | 27,760.00 |
| III | Drafting materials, reproduction of narrative reports, assays, production records, et al, over 24-months of operation | | 2,400.00 |
| | Balance carried forward | | $446,960.00 |

| | | |
|---|---|---|
| | Balance brought forward | $446,960.00 |
| IV | Depreciation on shovel-loader-ripper-bulldozer, (cost $12,000 @ less than 25%/year) | 5,000.00 |
| V | Assaying (by Root & Simpson), (at least one assay per each of the 2,870 proposed holes, @ $8 each) | 22,960.00 |
| (a) | Workman's compensation and employer's liability, pay-roll tax deductions, union dues (if any), and all other "deductions" will be absorbed by the sub-contractor. | none |
| VI | "Contingencies" (Rental or purchase of new technological equipment et al): Current laboratory research, on an experimental basis here in Golden, indicates that there is a simple, portable, field-device that will establish a cut-off signal of "ore", or "not ore", ---- to "ship", to "stock-pile", or to abandon as waste material. | 7,000.00 |
| | GRAND TOTAL | $481,920.00 |

# PART V

# ECONOMIC PROSPECTS OF THE AREA, AND PROBABILITY OF FULL REPAYMENT FOR DMEA ASSISTANCE

## Part V

### ECONOMIC PROSPECTS OF THE AREA, AND PROBABILITY OF FULL REPAYMENT FOR DMEA ASSISTANCE

The area concerned in this application is remarkably uniform in physical and geologic features. Topographic relief is low, and within the limits of 200-plus drill holes put down in 1955, Uranium-bearing ore was not found at more than 100 feet deep. (That experience established the "stratigraphic target" required, discussed elsewhere in this report. A 5-ft. margin of "maybe" was added).

On the Poison Basin Claim No. 9, this sporadic drilling discovered and developed an ore body that ran from 0.20% to 2.0% $U_3O_8$. This ore body is 41 feet deep to the top, and 81 feet to the bottom. It contains an estimated 110,000 tons. Its average value is 0.70% $U_3O_8$ -- 14 lbs. per ton. Such ore is worth, WITHOUT "BONUS", $49.00 per ton.

TO WIT: The Applicant already has an ore reserve at nearly $5,500,000 worth of Uranium Oxide in one shallow deposit. This reserve is subject to the 5% royalty required for DMEA repayment. It lies on Poison Basin Claims 9-10 only. These claims are not included in this application, but they are surrounded by the area for which this application is presented.

Furthermore: This is not an exclusive find or discovery on this group of claims. Of the 200-plus drill holes put down in 1955, a number of smaller ore bodies were discovered. From this same central area, a gross of $34,000-plus production was realized by the Applicant in 1955, from August 1 to November 5, in settlements from the Union Carbide Nuclear Company plant at Rifle, Colorado

IN ADDITION:-

It so happens that Selenium occurs in this same area, to an important degree, over a wide area of the six claims (Poison Basin Nos. 7-8-9-10-11-12).

This strange element Selenium is not "strategic", up to this time, but it has come into important demand. Field, laboratory, and office personnel in the U.S. Geological Survey and the U.S. Bureau of Mines, have been increased in the last few months re Selenium. This sudden interest in Selenium is apparently "classified", but the commercial price of this element has jumped from 10 to 24 or more times its jaded listing at "nominal, $1.00 per lb.", as of mid-1954.

The engineering design for operating this area includes recovery of the element, Selenium. As, if, and when this weird element becomes a source-of-income to the operation, the DMEA will receive royalty payments upon such receipts.

- - - - - - - -

SUMMARY:-

The production record of 3 months operation in 1955, (ca $34,000); by surface mining; the single huge reserve pod of a minimum of 110,000 tons of 0.70% $U_3O_8$; the Selenium content of the same area; the uniform nature of the surrounding area: These features add up to an assurance rather than a hope or promise that this area will pay out to a lending agency, and to the owners of this area.

PAUL H. KEATING
MINING ENGINEER

THE FOLLOWING PAGES ARE A LINE-BY-LINE REPLY TO FORM MF-103, (DEFENSE MINERALS EXPLORATION ADMINISTRATION), MADE BY THE SHAWANO DEVELOPMENT CORPORATION, 430 PARK AVENUE, NEW YORK FOR EXPLORATION ASSISTANCE ON AN AREA IN CARBON COUNTY, WYOMING

The data herewith is attached to Form MF-103 (five copies), and inserted in the front cover-pocket of the binder hereof. The same data is also bound as part of the Engineering-Gological report herewith. The purpose of this duplication is to retain within one binder all data concerning this Application.

Prepared and presented by
Paul H. Keating, Golden, Colo.

Signed Paul H. Keating

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FEB 27 1956

(31)

MF-108
(Revised April 1952)

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

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

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

*Not to be filled in by applicant*

Docket No. .....
Metal or Mineral .....
Date Received .....
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: SHAWANO DEVELOPMENT CORPORATION, (A Florida Corp.) Offices on 19th Floor, 430 Park Ave., New York, N.Y.

(*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. Corp.; Florida.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. Full data attached.

(*d*) If a partnership, add to the above statement the names and addresses of all partners. Full data attached.

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 This information is completely furnished in attached sheets and maps.

(*b*) State any mine name by which the property is known. "Shawano Poison Basin Mine".

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise: Owner, except for royalty of 5% described in attached data, on parts of the area only.

(*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. Applicant is the owner, except for 5% royalty described.

(*e*) If you own the land, describe any liens or encumbrances on it There are no other liens nor incumbrances beyond (c) and (d) above. Details attached.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Complete tabulated description attached hereto re Book and Page Nos. on file in the Co. Court House of Carbon Co., Rawlins, Wyo.

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. See att'd report.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. See att'd report.

(*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. See att'd. report and maps.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. Fully accessible . See att'd report on all of these subjects.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power. See attached report on all of these subjects. ALL of these requirements are available.

16—66551-1

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium, as a strategic mineral (element); Selenium as a by-product, but also subject to repayment-royalties to the DMEA.

(*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. Fully described in report attached.

(*c*) The work will start within 90 days and be completed within 24 months from the date of an exploration project contract.

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

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. (The above, "a" to "h" completely discussed, rept. att'd.

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)? Yes.

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

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

Explain in detail on acompanying paper.

## CERTIFICATION

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

Dated January 10, 1956, 195__

SHAWANO DEVELOPMENT CORPORATION
430 Park Ave. (Applicant) New York, N.Y.
By Paul N Keating
Geologist-Engineer-Consultant
(Apt. 5, Mines Park, Golden Colo).

**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

SHAWANO DEVELOPMENT CORPORATION
430 Park Ave., New York, N. Y.

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FEB 27 1956

Details to be attached to Form MF-103 (rev. April, 1952)

1. (a) Name of Applicant: Shawano Development Corporation, 430 Park Ave., New York, New York.

   (b) A corporation organized under the laws of the State of Florida.

   (c) Officers and addresses:

| | |
|---|---|
| Hon. Charlie E. Johns (ex.Gov. of Fla.) | Chairman of the Board and Director |
| Alexander L. Guterma | President and Director |
| Robert J. Eveleigh | Treasurer |
| Herman L. Close | Vice-President and Director |
| John E. Bollinger | Secretary and Director |
| William Stockton | Director |
| Pamela Scriven | Ass't. Secretary |

   The address of the above personnel is "19th Floor, 430 Park Ave., New York, N.Y.".

   (d) Not a partnership.

2. Applicant has complied. No replies required on Form MF-103.

3. Applicant's property rights:

   (a) Applicant holds clear title to 134 contiguous mining claims in the "Poison Basin" area of western Carbon County, Wyoming. Attached hereto is a map of the entire group. Forty-one of these claims are concerned in this application, and are marked on the attached

3. (a) cont'd.

map by a suitable convention. On the next page is tabulated the Book and Page Numbers as filed in the Court House of Carbon County, Rawlins, Wyoming.

(b) State the name by which the property is known:

The property is known as "Shawano Poison Basin Mine."

(c) State (applicant's) interest:

The applicant's interest is as owner of this entire group of unpatented claims, with a royalty of 5% to one LeRoy Benson, of Baggs, Wyoming. Benson was the original locator of this group of claims. He sold it to Garfield and Pasternak, (Suite 1402, Mile-Hi Center, Denver, Colorado), who firmed up the title to the area through one A. K. Swan, their attorney. After clearance of title by Garfield & Pasternak, the property (as a whole) was transferred to the Applicant, the Shawano Development Corporation.

(d) Applicant is the owner, with the 5% over-ride described above.

(e) There are no liens nor encumbrances on the land beyond the 5% royalty described in (c), and (d) above.

(f) The land consists of unpatented claims. On the following pages is a tabulation of the forty-one claims concerned in this application, giving the Book and Page Number for each location notice and certificate.

4. Physical description: (Mining or exploration data, past and present: existing mine workings, and facilities; Applicant's interest in such operations, and accessibility for examination purposes):

(a) These data are fully covered in the accompanying geological and engineering report attached. But, for purposes of processing this application the following summary is given:

1. Mining (and exploration) have been en proces since August, 1955.

2. The operation is open-pit, mechanical-shovel operation, in the loose Browns Park formation in which the uranium bearing minerals have been found.

4. (a) cont'd.

3. The applicant has, on the ground, and in operation, all of the mechanical equipment necessary for exploration and production, (in terms of mechanical rippers, bull-dozers, and mechanical loaders).

4. The interest in this equipment is ownership, with which a sub-contractor will furnish the man-power for actual production.

5. Every square foot of the entire area is accessible, by car, or drill rig, or other mechanical device.

(b) Past and current production; ore reserves:

1. Production started in August, 1955. Attached hereto are photographic copies of "settlement sheets" from the United States Vanadium Corp. plant at Rifle, Colorado.

2. **More than 100,000 tons of commercial $U_3O_8$ ore have been developed on Poison Basin claims Nos. 7 to 12 inclusive. These six claims are completely surrounded by the 41 claims concerned in this Application, --- but these six claims are NOT included for exploration hereunder. HOWEVER: There is no lithologic, structural, or stratigraphic difference between these developed claims and the surrounding area to which this Application is pertinent.**

(c) Describe geologic features of the property, et al.

A geological and engineering report accompanies this application on this particular area. Maps, data, and technologic information is included in this report. It is not requested that this material be returned to the Applicant.

(d) State the facts re accessibility; roads, distances to shipping, supply and residential points:

1. Accessibility is complete. The area is 7-8 miles north-westerly from Baggs, Wyoming (a 250-pop. village). The entire area concerned herein can be reached by jeep, passenger car, or truck, and without abuse to the machine.

4. (d) cont'd.

2. Roads: The area is located about 7-8 miles northwest of Baggs, Wyoming, over unsurfaced but maintained roads.

3. At the date of this application, and heretofore, shipments of Uranium-bearing ore have been made to Rifle, Colorado, to the U. S. Vanadium Corporation mill. This distance is over surfaced roads, but it is 146 miles away. It has been made at a 10¢ per ton-mile cost. Inquiry by the Applicant has recently revealed that shipments can be made to Creston, Wyoming, to a Union Pacific rail-head, at savings of $3.00 to $5.00 per ton, -- which shipments will be consigned to a Salt Lake City refining mill. AT THIS DATE of application, negotiations are en proces to reduce current shipping costs.

4. There are sufficient "resident buildings" in the village of Baggs, to house and supply operating personnel for this project. "Supplies" are available, for all ordinary purposes, within 3-4 hours, at the city of Craig, Colorado, 41 miles south of Baggs. Trailer sites are available somewhat closer.

(e) Availability of manpower, materials, supplies, equipment, water, and power:

1. This operation requires only a limited personnel, but with a high order of educational background. The "machines" do most of the physical work. The skilled manpower is already on the Applicant's staff.

2. Materials, supplies, and equipment are already installed on the current producing area. THIS APPLICATION CONCERNS ONLY THE EXPLORATION OF THE SURROUNDING AREA.

3. Water is nearby -- a gas-drilling-operation within a mile of the area concerned herein has a flow of 2000 gallons per minute of good usable water, for industrial or domestic purposes. This water supply is available to the Applicant.

4. Power: Less than a mile from the area concerned, there is a natural gas well, discovered in 1955, by the Kerr-McGee interests. There is no pipeline to major consuming areas for this natural

4. (e) cont'd.

gas. This gas well is available to the Applicant for power (heat).

5. (a) State the mineral or minerals for which you wish to explore:

1. Uranium, which is a strategic mineral.

2. Selenium, the interest in which has been enormously stimulated within the last very few months. (This is not yet, at the date of this application, designated as a "strategic" element; BUT, the U. S. Bureau of Mines, the U. S. Geological Survey, and other Federal Agencies have added personnel to develop sources of Selenium). THE AREA CONCERNED IN THIS APPLICATION TO DMEA CONTAINS SELENIUM to an important degree.

Up to the date of this application to DMEA, there has never been found a primary ore of this element, Selenium, It has heretofore been a by-product of electrolytic copper-refining operation.

Negotiations are now en proces with major industrial interests who have the scientific and industrial know-how, to recover BOTH, Uranium and Selenium from this particular area. The Defense Minerals Exploration Administration will automatically receive its specified royalty from the recovery of both of these elements, Uranium and Selenium.

(b) Proposed work: The Applicant has already done $150,000 worth of work on a small "discovery portion" of this area. Sustaining production has come out of these efforts by limited "groping" operations, over less than 50 acres of the 2,500+ acres of land held by the Applicant.

The proposed work includes 301,350 feet of drilling in this particular area; on a controlled and closely-supervised pattern, by highly competent personnel; and with rigid and prompt reports of all findings, to the Federal Agencies concerned. Complete breakdown of this work is described and detailed in the attached engineering-geological report.

5. cont'd.

(c) The work will start within 90 days and will be completed within 24 months after the award of the contract applied for.

(d) Experience and background of the Applicant: This application to the DMEA has been prepared by Paul H. Keating, Golden, Colorado, whose first contact with Uranium-bearing minerals was during World War I (1917-1918). There is no person in the U. S. today with technical training, who has been longer in contact with Uranium-bearing minerals, their occurrence and their production.

Other personnel: Paul Rheinhard, Supt. of current operations has been in charge of ore-production for about 30 years, on properties producing mercury manganese, the base metals, and other natural resources.

These two men present the core of operations by the Applicant. These men will supervise and carefully direct the operation.

6. Estimate of costs:

(a) The Applicant has drilled over 200 exploration holes, but upon a relatively small part of the entire group of claims. This small area is no different geologically from the surrounding total area of the Applicant's holdings. Production from this small area has kept the operation alive. But, it is the belief of the Applicant that DMEA assistance can bring this area into <u>important</u> production of both Uranium, and Selenium. It is proposed to sub-contract items marked "*". Following are the estimates of costs:

| | | |
|---|---|---|
| *Drilling: | 301,350 ft. at $1.33/ft. | $401,800.00 |
| *Bulldozing: | 2,000 hrs.at 7.50/hr. | 15,000.00 |

(b) Supervision, accounting, engineering, consulting for two years:

| | | |
|---|---|---|
| Supt. at $500/mo. | $12,000.00 | |
| Accounting at $40/wk. | 4,160.00 | |
| Engineering, mapping, reports | 9,600.00 | |
| Consultants | 2,000.00 | |
| | $27,760.00 | 27,760.00 |
| | Carried Forward | $444,560.00 |

6. cont'd.

| | | |
|---|---|---|
| | Carried Forward | $444,560.00 |
| (c) Operating materials and supplies: | | |
| Drafting materials; printing of maps and narrative reports (6 copies per month); (over 2 years) | $ 2,400.00 | $ 2,400.00 |
| Water - nearby | | |
| Fuel - furnished by subcontractor | | |
| Power - furnished by subcontractor | | |
| (d) Operating equipment: | | |
| Applicant owns an Allis-Chalmers HD-5 Diesel loader, (a combination 'dozer, ripper, and overhead shovel loader). It is proposed to lease this machine to a subcontractor. Contractor will keep this machine in operatable condition. Its original cost is $12,000.00. It is estimated that the depreciation on this piece of equipment over the 2-year period proposed will be | | 5,000.00 |
| (e) None | | |
| (f) None | | |
| (g) Miscellaneous: Particularly "analytical work": It is the Applicant's intention to establish a competent agency on the ground for close and rapid chemical analyses of the cuttings obtained from the proposed drilling program, for both Uranium and Selenium. The results of these analyses will be kept up to date on the assay maps and in the reports to the Federal Agencies concerned. The "analytical work" will be by Root & Simpson, of Denver. This firm is one of the four chemical-assay umpires accepted by the Atomic Energy Commission. The Applicant estimates an averaged requirement of at least 1 sample from each proposed hole of 105 ft. depth; | | |
| | Carried Forward | $451,960.00 |

| | | |
|---|---|---|
| | Carried Forward | $451,960.00 |
| 6. (g) cont'd. | | |
| | each to be assayed for Uranium and Selenium, at a cost of $8.00 per hole. 2,870 holes are in the proposed exploration program. The total assaying cost for the entire program of 2,870 exploration holes is estimated at $8.00 each. | 22,960.00 |
| | Accounting costs are described in "6 (b)" above. | |
| | Workman's Compensation, Employer's Liability Insurance, and payroll taxes are included in the agreements with the sub-contractor, or the Applicant, as interest may appear. | ------- |
| (h) | Contingencies: Rentals or purchase of new technological devices, by which quick field-type analyses may be made, or "cut-off" points of "ore", or "not ore", subject to close review by competent scientific personnel in the Federal Agencies interested, and by the Applicant's staff. | |
| | Such expenditures will not be made nor any work done without consultation with and approval by authorized personnel of the DMEA -- in writing. | 7,000.00 |
| | TOTAL | $481,920.00 |

7. (a) The Applicant is prepared to furnish his (its) share of the cost of the proposed project, in accordance with the regulations on Government participation.

(b) The Applicant proposed to furnish his (its) share of the cost by <u>money</u>.

THIS REPORT IS PRESENTED IN SIX PARTS, EACH OF WHICH MAY BE OF SPECIAL INTEREST TO VARIOUS EXAMINING PERSONNEL.

EACH PART HAS BEEN STAPLED, AS A UNIT, AND CAN BE LIFTED AS SUCH FROM THE OVER-ALL BOUND COPY. THESE PARTS CONSIST OF --

CONTENTS


Part I TITLE TO THE PROPERTY: A full abstract is given to all claims concerned in this report, giving Book and Page Nos., and dates of filing. Claims that have an "over-ride" royalty are so marked, and a copy of the "royalty agreement" is enclosed herewith. The Applicant is fully aware that valid title is the first requisite to any sound operation, and such title has been established by the Applicant, per the attached data.

Part II Geology of the region in general, and of the area concerned in this Application in particular. Included is a reproduction of U.S.G.S. Circular 344 (1954), which describes the regional and local geology of the area.

Part III Engineering preparation and procedures: This section describes the "quantitative" work already done on the area, and the proposed procedures upon which future exploration will be conducted, re mapping, technical records, assays, estimates of findings, narrative reports, and similar technological items.

Part IV Records of 1955 production of the "nucleus area", upon which this Application is based. ALSO, a brief "human history" of the area is attached.

? missing ↔ Part V Economic features and prospects of the area, including probability of full repayment of DMEA assistance.

Part VI Estimates of costs for exploring this particular area, including repayment-royalties to the DMEA for non-strategic minerals that are known to exist on this land.

RECEIVED
FEB 27 1956

# ENGINEERING AND GEOLOGICAL REPORT ON AN AREA NEAR BAGGS, WYOMING.

PREPARED FOR THE SHAWANO DEVELOPMENT CORPORATION, 430 PARK AVE., NEW YORK, NEW YORK, AS PART OF AN APPLICATION TO THE DEFENSE MINERALS EXPLORATION ADMINISTRATION, FOR ASSISTANCE IN EXPLORING THIS AREA FOR URANIUM-BEARING MINERALS.

PREPARED BY: Paul H. Keating
PAUL H. KEATING,
GOLDEN, COLORADO
JANUARY, 1956.

BUREAU OF MINES

OFFICIAL BUSINESS

234 NEW CUSTOMHOUSE
DENVER 2, COLORADO

Defense Minerals Exploration Administration
U. S. Department of the Interior
Interior Building
Washington 25, D. C.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

| Date | Surname | Code |
|---|---|---|
| 7/24 | Ching | 700 |
| " | Ellis | 700 |
| " | Johnson | 110 |
| " | Mittendorf | 100 |
| 7/25 | C O | 220 |
| | | 225 |
| | | |
| | | |
| | | |

JUL 25 1957

Mr. Paul H. Keating, Geologist
Shawano Development Corporation
No. 5 Mines Park
Golden, Colorado

Re: Docket No. DMEA-4194
(Uranium and Selenium)
Shawano Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Keating:

Reference is made to your telephone call to Mr. Frank E. Johnson, Deputy Administrator, on July 23, 1957, at which time you expressed your desire to withdraw the subject application.

Accordingly, we are considering your application as having been withdrawn and are placing it in our inactive files.

Your interest in the DMEA exploration program and participation therein are fully appreciated.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

MChing/gla
7-24-57
cc to: Admr.'s Reading File
Code 700, Mr. Ching
THKiilsgaard, Rm. 5224
DMEA Field Team, Region III (2)

8623

To File: Nov. 19, 1957

Mr. Swan, president, Shawano Dev. Corp. visited Mr. Ellis' office (F.M. Murphy). He plans to submit new application based on recent work. Was provided with application forms.

FMM

Form 7
(12-56)

OFFICIAL FILE COPY

| Date | Surname | Code |
|---|---|---|
| 7/22 | Johnson | 110 |
| 7/24 | C | 220 |
| | | 700 |
| | | |
| | | |
| | | |

July 23, 1957

Memorandum

To: Mr. Ernest Wm. Ellis,
Rare and Miscellaneous Metals Division

From: Frank E. Johnson
Deputy Administrator

Subject: Withdrawal of proposed contract with
Shawano Mining Company - DMEA Docket No. 4194

With reference to the attached copy of memorandum for your files, will you have a letter of withdrawal prepared to send to Shawano with a copy to Prof. Keating, and also a letter to the Field Team advising of the action and requesting return of all copies of the contract.

NOTE: All copies proposed contract returned with Mr. Traver's memo 10/5/56. Contract withdrawn 10/10/56 - see letter to Mr. Keating

Attachment

FEJohnson/bih

cc to Docket Files
Mr. Johnson

8623

Tuesday, July 23, 1957

2:15 P. M.

Prof. Paul Keating telephoned me from Golden, Colorado with reference to DMEA Docket No. 4194 and the proposed contract with Shawano Mining Company for exploration of uranium and selenium.

Mr. Keating said he was speaking for the company and they wished to withdraw their application. He stated the company had done five or six times as much work as the contract called for, expending some $40,000. They had built a pilot plant and were producing yellow cake in the amount of about 200 lbs. a day which ran from 60 to 70% uranium oxide. He said he had talked to the Denver office and they had advised he should contact Washington. He did not want to put all of this information in a letter and asked that we consider his call as a request for withdrawal. He stated the contract was in the Denver office and had never been picked up by the company because of the small amount of authorized work which was only a small part of what they had requested.

He said incidentally they had found that the sands on their property carried about one-half percent molybdenum and that the Climax Molybdenum Corporation was very much interested. I asked about the selenium and he said the occurence was spotty but that the uranium and molybdenum appeared to be uniformly distributed throughout the property.

I advised Prof. Keating that we would write a letter referring to his telephone call and advising we would consider the application as having been withdrawn. He said he would appreciate that very much and thanked us for all the consideration we had given him. He said we would probably be hearing from him again in the future on some other application in a different area.

OFFICIAL FILE COPY

| Date | Surname | Code |
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| 7/10 | Ching | 700 |
| " | Ellis | 700 |
| " | Johnson | 110 |
| " | Mittendorf | 100 |
| 7/10 | C | 220 |
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| | | |

JUL 10 1957

Mr. Paul H. Keating, Geologist
Shawano Development Corporation
No. 5 Mines Park
Golden, Colorado

Re: Docket No. DMEA-4194
(Uranium and Selenium)
Shawano Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Keating:

Reference is made to our letter of May 2, 1957, outlining the conditions under which the subject application may be held open and further processed.

We wish to cooperate with you fully in allowing ample time to supply the required information; however, we cannot indefinitely postpone action on an application. Therefore, if we do not receive the required information within thirty days from the date of this letter, we will assume that you are no longer interested in proceeding with your application, and we will consider it as having been withdrawn.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Copy to: Shawano Development Corporation
19th Floor, 430 Park Avenue
New York, New York

MChing/gla
7-10-57
cc to: Admr.'s Reading File
Code 700, Mr. Ching
THKiilsgaard, Rm. 5224
DMEA Field Team, Region III (2)

8623

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

July 1, 1957

CENTRAL FILE COPY
DMEA
RECEIVED JUL 3 1957

| DATE | INITIALS | CODE |
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| 7/3 | C | 220 |
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Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4194 (Uranium-Selenium) Shawano Development Corp. (Shawano Poison Basin mine) Carbon County, Wyoming

Reference is made to the Administrator's letter of May 2, 1957 to Mr. Paul Keating concerning the subject docket.

We will appreciate advice as to the status of this docket and whether we should carry it in an active or denied status.

W H King

W. H. King

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

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| 5-1 | Chiang | 700 |
| 5-1 | Ellis | 700 |
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| " | Mathews | 100 |
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| | | |

MAY - 2 1957

Mr. Paul H. Keating
No. 5 Mines Park
Golden, Colorado

Re: Docket No. DMEA-4194 (Uranium & Selenium)
Shawano Development Corporation
Shawano Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Keating:

Your letter, dated April 5, 1957, and transmitted to this office through Mr. Richard S. Hunt, has been read with interest.

You wish to know whether this Administration would re-examine the subject property with the view of enlarging the extent and scope of the proposed exploration in line with your original application.

Our usual procedure requires that all the facts pertinent to an exploration program first be presented by the Applicant. Such facts in your case would include an up-to-date map of the property showing all the exploration work completed to date, together with a detailed description of the results. A specific program of exploration, based upon these results, but avoiding any duplication of work already done, should also be included.

Of course, any program of exploration must meet certain criteria established by this Administration. Work of a prospecting nature will not be approved. On the other hand, the exploration work should not go beyond a reasonable delineation and sampling of the ore and should not include work prosecuted primarily for mining or preparation for mining. Our experience has shown that a drilling program divided into stages, with the work in each successive stage dependent upon the results of the preceding stage or stages, is an effective and economical approach.

In view of the foregoing limitations and the considerable amount of exploration work already completed by Shawano, you will no doubt, appreciate the necessity of presenting, for our consideration, a specific program of exploration that is adapted to existing conditions. The extent and scope of Government participation will, of course, depend upon such conditions and the amount of exploration which, in our judgment, is warranted.

8623

We wish to remind you again of our requirement that all royalty claimants subordinate their claims to that of the Government. As you know, we experienced some difficulty in this respect in connection with the Matt claims. A performance bond may be furnished in lieu of a subordination agreement.

If you will furnish us with the information outlined above, we shall be pleased to consider it as an amended application under the subject docket number and process it in our usual manner.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

MChing/dlm 5-1-57
cc to Mr. Ching
Admr.'s Reading File
TH/Kiilsgaard, 5225
DMEA Reg. 3, (2)

# SHAWANO DEVELOPMENT CORPORATION

MILE HIGH CENTER * DENVER 2, COLORADO

April 24, 1957

OFFICIAL FILE COPY
D M E A
RECEIVED APR 29 1957

| DATE | INITIALS | CODE |
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| " | [illegible] | 100 |
| 4-30 | [illegible] | 700 |
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| | | |

Defense Minerals Exploration
Administration
Washington 25, D. C.

Attention: Mr. C. O. Mittendorf,
Administrator

Re: Docket No. DMEA-4194 (U and Se)
Shawano Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Mittendorf:

At the request of Mr. Paul H. Keating, I enclose herewith an original and one copy of a letter directed to your attention regarding the above caption.

Very truly yours,

SHAWANO DEVELOPMENT CORPORATION

Richard S. Hunt

Richard S. Hunt
Manager, Rocky Mountain Region

RSH:gb
encl
cc: Shawano - N. Y.

PAUL H. KEATING
MINING ENGINEER

OFFICIAL FILE COPY
DMEA
RECEIVED APR 29 1957

| DATE | INITIALS | CODE |
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| | | |
| | | |
| | | |

Golden, Colorado
April 5, 1957

Defense Minerals Exploration
Administration
Washington 25, D.C.

Attn: Mr. C. O. Mittendorf, Administrator

Re: Docket No. DMEA-4194 (U and Se)
Shawano Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Mittendorf:

This is to confirm my conversation with you this afternoon. First, however, allow me to say "Thank you" for the courteous attention that you gave to that long distance call.

---

To summarize this DMEA Docket No. 4194 (Uranium & Selenium).

1. An application on Form MF-103 was filed on or about Jan. 10, '56, together with a comprehensive geological report and engineering plan for exploration of a group of 41 contiguous claims, 7-8 miles northwest of Baggs, Wyoming. The filing was made by me for the Shawano Development Corp., 430 Park Ave., New York. The gross amount was for $481,000.00.

2. In late September, '56, a contract was awarded on the area for about $12,000 (Govt. participation). I recommended to the Corp. that the proffered contract be respectfully declined, in that it would not competently explore the area, but would require accounting, reports, and other expense almost equal to the full amount of the award.

3. I received a letter from your office dated Oct. 10, '56 saying that your office would hold the application in abeyance until April 1, 1957. In the afternoon mail of April 5, '57, after our telephone conversation, I received your letter dated (by hand-stamp) April 3, '57, requesting a final decision, re the contract applied for under the above Docket No. DMEA-4194.

4. Before I called you, I 'phoned the local DMEA office in Denver, gave them the above summary, and requested and received approval that a direct reply to you as Administrator, would not "push anybody out of shape". (At the moment Will Traver's job has not been filled --- we buried him two weeks ago). My conversation was with a fine co-operative lad named "Townsend", who had the docket and the data before him while I was talking.
   I believe such "protocol" is important in our complex world, and this is to assure you that I have cleared "through channels" this direct communication to you.

---

PAUL H. KEATING
MINING ENGINEER



What the Corporation has done on the "Poison Basin Mine", since the application was filed -

1a. Since Jan. 10, '56, referred to in "1" above, the Corp. has spent more than $30,000.00 in exploration drilling. Most of the holes have shown mineralization from five to 125' thick, in terms of "ore", or treatable mill-dirt.

2a. The Corp. has installed an up-grading mill on the ground. This mill represents a capitol investment of more than $300,000.00 in mechanical equipment and labor costs. Its rated capacity is 1000 tons per day. However, on any such pioneer undertaking, there is a cut-and-try period to iron out the "bugs". These bugs are being eliminated.

3a. The Corp. has drilled, cased, and equipped with pumps, a water supply for the above mill. (Water supply for a mill or any other operation in that arid Wyoming desert is an achievement of no small stature!)

4a. The Corp. has contracted for electric service at a minimum annual rate (about $300 per month), for the operation of the mill.

5a. The Corp. has contracted with the Philips Petroleum Co., for millions of cubic ft. of gas for concentrate-drying processes, which gas comes from a well about a mile away. The Corp. installed the pipeline.

6a. Several pods of "shippable" ore, and many more pods of "mill-dirt" that can be up-graded into "ore", have been discovered. This has been done without outside help of any kind.

7a. The Corp. has maintained a resident engineering staff on the property since Aug. 1, 1956; it has supported a local payroll of at least $1000.00 per week or more, since August 1, 1956.

8a. The Corp. has sustained and paid for a quick competent field method for U308 analysis. The purpose of this method is to determine "ship" or "not-ship", to "mill", or "not mill".

9a. The Corp. has stripped off, by bull-dozer and other mechanical means, an over-burden of at least 600,000 tons, in order to reach "shippable crude ore". Much of this over-burden can be milled and up-graded into a profitable bracket, and it has been stock-piled into defined areas for future treatment by the mill. This operation represents a minimum of $40,000.00 investment, by contract labor and equipment.

10a. The Corp. has built a landing field suitable for small aircraft during the period that flying is at all possible in that area. The purpose of this is to expedite contact between Denver and the operation, for personnel, and supplies not obtainable at Craig, Colo., (Flying time from Denver about 1 hr., driving time about 5-6 hrs.).

11a. The Corp. has installed substantial metal buildings over the equipment; a chemical laboratory (equipped), and a comfortable trailer house as quarters for the resident engineer in charge.

12a. Research is going on to develop quick field techniques for assaying Selenium.

---

ADD TO THE FOREGOING:

1b. The title to the ground, and all other legal requirements necessary to obtain the original contract under DMEA Docket No. 4194 REMAIN UNCHANGED.

2b. The management of the Corporation is unchanged.

3b. A Denver branch office has been opened (1645 Court Place, Room 420), in order to expedite operations somewhat closer to the mine than New York, N.Y. This office is in charge of R. S. Hunt. (Mr. Hunt has been in close contact with the operation since the property was first put together, as described in the original application to your Administration).

---

It would seem that the foregoing record of performance is convincing evidence that Shawano Development Corporation is showing good faith in bringing this Poison Basin Mine into substantial production.

---

THE PURPOSE OF THIS LETTER is to inquire if your Administration would re-examine the Poison Basin Group, with a view to enlarging the extent and scope for exploration.

An amended description of proposed work would be agreeable to the Corporation, but more in line with the amount requested ($481,000), vs. the amount awarded ($12,000).

Very truly yours

Paul H Keating

Paul H. Keating
(Eng'r - Consultant for Shawano Dev. Corp., DMEA Docket 4194)

PAUL H. KEATING
MINING ENGINEER

EXTRA COPY
DMEA
RECEIVED APR 29 1957
DATE | INITIALS | CODE

Golden, Colorado
April 5, 1957

Defense Minerals Exploration
Administration
Washington 25, D.C.

Attn: Mr. C. O. Mittendorf, Administrator,

Re: Docket No. DMEA-4194 (U and Se)
Shawano Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Mittendorf:

This is to confirm my conversation with you this afternoon. First, however, allow me to say "Thank you" for the courteous attention that you gave to that long distance call.

---

To summarize this DMEA Docket No. 4194 (Uranium & Selenium).

1. An application on Form MF-103 was filed on or about Jan. 10, '56, together with a comprehensive geological report and engineering plan for exploration of a group of 41 contiguous claims, 7-8 miles northwest of Baggs, Wyoming. The filing was made by me for the Shawano Development Corp., 430 Park Ave., New York. The gross amount was for $481,000.00.

2. In late September, '56, a contract was awarded on the area for about $12,000 (Govt. participation). I recommended to the Corp. that the proffered contract be respectfully declined, in that it would not competently explore the area, but would require accounting, reports, and other expense almost equal to the full amount of the award.

3. I received a letter from your office dated Oct. 10, '56 saying that your office would hold the application in abeyance until April 1, 1957. In the afternoon mail of April 5, '57, after our telephone conversation, I received your letter dated (by hand-stamp) April 3, '57, requesting a final decision, re the contract applied for under the above Docket No. DMEA-4194.

4. Before I called you, I 'phoned the local DMEA office in Denver, gave them the above summary, and requested and received approval that a direct reply to you as Administrator, would not "push anybody out of shape". (At the moment Will Traver's job has not been filled --- we buried him two weeks ago). My conversation was with a fine co-operative lad named "Townsend", who had the docket and the data before him while I was talking.
   I believe such "protocol" is important in our complex world, and this is to assure you that I have cleared "through channels" this direct communication to you.

---

PAUL H. KEATING
MINING ENGINEER



What the Corporation has done on the "Poison Basin Mine", since the application was filed -

1a. Since Jan. 10, '56, referred to in "1" above, the Corp. has spent more than $30,000.00 in exploration drilling. Most of the holes have shown mineralization from five to 125' thick, in terms of "ore", or treatable mill-dirt.

2a. The Corp. has installed an up-grading mill on the ground. This mill represents a capitol investment of more than $300,000.00 in mechanical equipment and labor costs. Its rated capacity is 1000 tons per day. However, on any such pioneer undertaking, there is a cut-and-try period to iron out the "bugs". These bugs are being eliminated.

3a. The Corp. has drilled, cased, and equipped with pumps, a water supply for the above mill. (Water supply for a mill or any other operation in that arid Wyoming desert is an achievement of no small stature!)

4a. The Corp. has contracted for electric service at a minimum annual rate (about $300 per month), for the operation of the mill.

5a. The Corp. has contracted with the Philips Petroleum Co., for millions of cubic ft. of gas for concentrate-drying processes, which gas comes from a well about a mile away. The Corp. installed the pipeline.

6a. Several pods of "shippable" ore, and many more pods of "mill-dirt" that can be up-graded into "ore", have been discovered. This has been done without outside help of any kind.

7a. The Corp. has maintained a resident engineering staff on the property since Aug. 1, 1956; it has supported a local payroll of at least $1000.00 per week or more, since August 1, 1956.

8a. The Corp. has sustained and paid for a quick competent field method for U308 analysis. The purpose of this method is to determine "ship" or "not-ship", to "mill", or "not mill".

9a. The Corp. has stripped off, by bull-dozer and other mechanical means, an over-burden of at least 600,000 tons, in order to reach "shippable crude ore". Much of this over-burden can be milled and up-graded into a profitable bracket, and it has been stock-piled into defined areas for future treatment by the mill. This operation represents a minimum of $40,000.00 investment, by contract labor and equipment.

10a. The Corp. has built a landing field suitable for small aircraft during the period that flying is at all possible in that area. The purpose of this is to expedite contact between Denver and the operation, for personnel, and supplies not obtainable at Craig, Colo., (Flying time from Denver about 1 hr., driving time about 5-6 hrs.).

11a. The Corp. has installed substantial metal buildings over the equipment; a chemical laboratory (equipped), and a comfortable trailer house as quarters for the resident engineer in charge.

12a. Research is going on to develop quick field techniques for assaying Selenium.

---

ADD TO THE FOREGOING:

1b. The title to the ground, and all other legal requirements necessary to obtain the original contract under DMEA Docket No. 4194 REMAIN UNCHANGED.

2b. The management of the Corporation is unchanged.

3b. A Denver branch office has been opened (1645 Court Place, Room 420), in order to expedite operations somewhat closer to the mine than New York, N.Y. This office is in charge of R. S. Hunt. (Mr. Hunt has been in close contact with the operation since the property was first put together, as described in the original application to your Administration).

---

It would seem that the foregoing record of performance is convincing evidence that Shawano Development Corporation is showing good faith in bringing this Poison Basin Mine into substantial production.

---

THE PURPOSE OF THIS LETTER is to inquire if your Administration would re-examine the Poison Basin Group, with a view to enlarging the extent and scope for exploration.

An amended description of proposed work would be agreeable to the Corporation, but more in line with the amount requested ($481,000), vs. the amount awarded ($12,000).

Very truly yours

Paul H Keating

Paul H. Keating
(Eng'r - Consultant for Shawano Dev. Corp., DMEA Docket 4194)

Excerpt from Mr. Mittendorf's diary, 4/5/57:

Paul Keating, who is a geology professor at the Colorado School of Mines and an old friend of Frank Johnson's, phoned me from Denver to discuss docket 4194, Shawano Development Corp. We had just written the Shawano Development Corporation and needled them for action on a contract mailed to them a long time ago and which up to this date has not been executed. We gave them 30 days from April 1 to execute the contract or return it unsigned. ?

Keating said it was his fault that the contract had not been signed, and he said the small amount we approved against the amount requested would not justify all the red tape involved in dealing with DMEA. He said he asked for a $400,000 project and the field team recommended only $12,000.

Since filing the application the company has gone ahead with its own exploration and spent about $30,000 in drilling. He said they have found ore and have one pod which contains 110,000 tons of .71 $U_3O_8$. He said there are indications of a half-dozen other pods which will run .10 or better.

He also said they constructed a $250,000 mill and it was put in operation Oct. 10, 1956. They produced $35,000 of ore in 1955 and $20,000 last year. Also, last year, they stripped about 300,000 cubic yards of overburden.

He wanted to know if we would reconsider his original application in light of these new developments.

I invited him to answer our recent letter in such a way that it would describe the results of recent work as told to me over the phone, and request that the new facts be considered as a supplement to his original application and reconsideration thereof. He said he would do so. He also said he had put two engineer-geologists on the property last summer and they have thoroughly mapped the area which the company controls. He will include copies of these maps with his letter.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

| Date | Surname | Code |
|---|---|---|
| 4-2 | Ching | 700 |
| 4-2 | Ellis | 700 |
| " | Johnson | 130 |
| | | ~~100~~ |
| 4/3 | Selfridge | 120 |
| " | Mittendorf | 100 |
| 4/4 | C | 220 |
| | | 700 |
| | | ~~[illegible]~~ |

APR 3- 1957

Mr. Paul H. Keating
No. 5 Mines Park
Golden, Colorado

Re: Docket No. DMEA-4194 (Uranium & Selenium)
Shawano Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Keating:

Our letter of October 10, 1956, advised you that we would hold the subject application in abeyance until April 1, 1957, to allow you time to complete the preliminary stages of your exploration work and prepare an amended application under the subject docket number.

Since we have had no word from you, please advise us promptly of your intentions in the matter. We wish to cooperate with you regarding the allowance of ample time, but if we do not hear from you within 30 days from the date of this letter, we will then consider the subject docket closed.

Sincerely yours,

G. O. Mittendorf

Administrator

MChing/izm 4-2-57
cc to: Mr. Ching
Admr.'s Reading File
THKiilsgaard, 5224
DMEA FT Reg. 3 (2)
Shawano Development Corp., N.Y.

8623

Su[illegible]me copy

700

Ching
Selfridge

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

Mr. Paul H. Keating
No. 5 Mines Park
Golden, Colorado

Re: Docket No. DMEA-4194
(Uranium and Selenium)
Shawano Pedson Basin Mine
Carbon County, Wyoming

Dear Mr. Keating:

Reference is made to your telegram, dated October 4, 1956, to William M. Traver, our Executive Officer at Denver, requesting that the current proposed exploration contract be suspended during the Phase I exploration or placed in a deferred status for a short time.

Since the proposed contract has not been executed, the status of the Shawano Development Corporation remains that of an applicant.

In view of the situation outlined in your telegram, this Administration is willing to hold the subject application in abeyance until April 1, 1957, to allow you time to complete the preliminary stages of your exploration work and prepare an amended application under the subject docket number. If, on or before that date, you are in a position to satisfy our requirements with respect to a Subordination Agreement on the Matt claims, or a Performance Bond in lieu thereof, we shall be pleased to consider your amended application on the basis of its merit. In the meantime, please consider the current proposal of a contract as having been withdrawn.

Sincerely yours,

C. O. Mittendorf

Administrator

Copy to: Shawano Development Corporation
430 Park Avenue
New York, New York

MChing/gla 10-9-56
cc to: Admr.'s Reading File
Docket
Messrs. JECrawford, 3643
THKiilsgaard, 5224
JOHosted, 3210, GS
Code 700
Mr. Ching
DMEA Field Team, Regi[illegible]

NOTE: Proposed contract Idm-E968 withdrawn, but docket to be held in active file until April 1, 1957

10-9-56 gla

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

RECEIVED
OCT - 8 1956

224 New Customhouse
Denver 2, Colorado

October 5, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4194 (Uranium and Selenium), Shawano Development Corporation, Carbon County, Wyoming - Proposed Exploration Project Contract No. Idm-E968

Enclosed are three copies of a telegram received from Paul Keating, the Applicant's geologist. He advises that because of the delay in resolving matters which are a prerequisite to execution of the contract, in the interim the Applicant has completed a considerable portion of the work outlined under Phase I and are in a position to complete the work without Government assistance.

Therefore, he requests that the contract be suspended without prejudice to the Applicant; or, if the contract cannot be suspended without prejudice, that the contract be held in a deferred file for an additional period of time.

Enclosed are the original and five copies of the contract, for your disposition. Please advise us of your decision in the matter.

W. M. Traver

W. M. Traver

Enclosures

Class of Service
This is a fast message unless its deferred character is indicated by the proper symbol

WESTERN UNION
TELEGRAM
W. P. MARSHALL, PRESIDENT

OCT 5 1956

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

DENVER, COLORADO

KB795

K DVB798 LONG NL PD=TDDV GOLDEN COLO 4= 1956 OCT 4 PM 11 27

WILLIAM H TRAVER=

CHIEF REGION III 224 NEW CUSTOMS HOUSE DVR=

MR TRAVER; RE DMEA CONTRACT THAT WAS AWARDED TO THE SHAWANO DEV. CORP, 430 PARK AVE, NEW YORK, LAST JULY 25: (THIS CONTRACT HAS BEEN THE SUBJECT OF SEVERAL CONVERSATION BETWEEN US, AND ITS DELIVERY DEPENDS UPON A "PERFORMANCE BOND" FOR WHICH APPLICATION WAS MADE OVER THREE WEEKS AGO). THE BONDING AGENT, WHO OBTAINED FROM YOUR OFFICE A COPY OF THE PENDING CONTRACT, REQUESTED A COPY OF THE APPLICANTS FINANCIAL STATEMENT, BUT HAS RECEIVED NO REPLY AS YET. INQUIRY BY ME TO OFFICIALS OF THE APPLICANTS CORP REVEALS THAT THEIR FINANCIAL POSITION IS RAPIDLY CHANGING INTO EXPANSION AS A RESULT OF THE MINING OPERATIONS NOW GOING ON, AT THE BAGGS PROPERTY. THE UP-GRADING MILL IS OPERATING, AND IS DOING A HIGHLY SATISFACTORY JOB. THE EFFECT IS THAT THE LAST "FINANCIAL STATEMENT" IS A PAIR OF COLUMNS OF MEANINGLESS FIGURES.
THE REQUEST FOR A PERFORMANCE BOND IS DUE TO THE RELUCTANCE OF ONE OVERRIDE HOLDER TO CONSENT TO LIEN ON HIS 5 PERCENT ROYALTY THE TOTAL AMOUNT OF THE CONTRACT ON THE $12,000 OF GOVERNMENT PARTICIPATION, HARDLY JUSTIFIES THE COMPLEXITIES OF ACCOUNTING AND ENGINEERING

CLASS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol

# WESTERN UNION
## TELEGRAM

W. P. MARSHALL, PRESIDENT

1220 (R 11-54)

SYMBOLS
DL = Day Letter
NL = Night Letter
LT = International Letter Telegram

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

KB7JS - Kleinfeld Fund - Home Office

1954 4 PM 11 27

ON THIS "PHASE I" OPERATION. THE APPLICANT HAS BEEN STEADILY DRILLING ON THE PROGRAM THAT I OUTLINED FOR EXPLORATION IN MY ORIGINAL APPLICATION MADE TO DMEA ABOUT A YEAR AGO. MUCH POTENTIAL GROUND HAS BEEN FOUND, SPECIALLY IN VIEW OF THE NOW OPERATING MILL THAT CAN UPGRADE U3O8 CONTENT FROM 0.04 PERCENT TO MORE THAN 0.20 PERCENT THE APPLICANT CORP IS MECHANICALLY EQUIPPED AND FINANCIALLY ABLE TO COMPLETE THIS PHASE I EXPLORATION, AND RESIDENT ENGINEERS ARE KEEPING CAREFUL RECORDS OF THIS WORK WHICH IS NOW GOING ON. THEREFORE, I RESPECTFULLY REQUEST THAT WE SUSPEND THE CURRENT DMEA CONTRACT, WITHOUT PREJUDICE TO THE APPLICANT, FOR THIS PHASE I EXPLORATION. IF THE DISCOVERIES ARE ADEQUATE IN THE JUDGEMENT OF YOUR AGENCY, AND IF THE CONSENT TO LIEN CAN BE OBTAINED MEANWHILE AND/OR IF A PERFORMANCE BOND CAN SUBSTITUTE FOR THIS CONSENT TO LIEN THEN, THEN THE APPLICANT CORP WILL RENEW ITS APPLICATION FOR A MORE COMPLETE AND COMPREHENSIVE EXPLORATION CONTRACT. IF SUCH A PROCEDURE CAN BE FORWARDED TO WASHINGTON AUTHORITY WITHOUT PREJUDICE TO THE APPLICANT, I ADVISE THAT IT BE DONE BY YOUR OFFICE TOMORROW OCT 5. IF, IN YOUR JUDGEMENT THIS PRIVATELY-ACCOMPLISHED EXPLORATION IN PHASE I, WILL COMPROMISE THE APPLICANTS STATUS WITH YOUR ADMINISTRATION, I PERSONALLY BEG YOU TO PUT THE CONTRACT INTO A DEFERRED FILE FOR A BIT MORE TIME. RESPECTFULLY=

"PAUL KEATING.=

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

RECEIVED
OCT 1956

224 New Customhouse
Denver 2, Colorado

October 5, 1956

Mr. Paul H. Keating
No. 5 Mines Park
Golden, Colorado

Re: Docket No. DMEA 4194
(Uranium and Selenium)
Shawano Development Corporation
Carbon County, Wyoming -
Proposed Exploration Project
Contract No. Idm-E968

Dear Mr. Keating:

Your telegram of October 4, 1956, relative to the subject proposed contract, has been forwarded to the Washington Office, DMEA, for their consideration and appropriate action, on which we will advise you when we have been informed of their action.

Very truly yours,

W. M. TRAVER

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

JWT:prl

cc: Chairman, Op. Comm. (2)
Harshman
Shaw
Townsend
Corres. file
Chron.

Surname copy

DEPARTMENT OF THE INTERIOR

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

DMEA
14X4401(01) Revolving Fund, Defense Production Act, Interior (Allocated Working Fund to the Office of the Secy.)

Ching (EWE)
Ellis
Talbert
Selfridge
Yglesias

T E L E T Y P E

SEP - 7 1956

W. M. TRAVER, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

REURTT SEPTEMBER 6 SHAMANO DEVELOPMENT CORPORATION DOCKET DMEA-4194 PERFORMANCE BOND FOR $11,925 GOVERNMENT'S SHARE OF CONTRACT ACCEPTABLE IN LIEU OF CONSENT TO LIEN ON MAT CLAIMS 1-6.

George C. Selfridge

CHAIRMAN, OPERATING COMMITTEE

EWEllis/gla
9-8-56
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700, Mr. Ching
Confirmation to Region III

Chairman, Operating Committee,
DMEA
9-7-56

RECEIVED
SEP - 7 1956

BUR MINES DN 235 9-6-56 4-37 PM

CHAIRMAN, OPERATING COMMITTEE, DMEA

RE DOCKET DMEA 4194 PROPOSED CONTRACT IDM-E968 SHAWANO DEVELOPMENT COPR., CARBON COUNTY, WYOMING. APPLICATXXX APPLICANT UNABLE TO OBTAIN SUBORDINATION AGREEMENTS ON MATT CLAIMS NOS. 1-6. WILL YOU ACCEPT PERFORMANCE BOND IN LIEU OF AGREEMENTS AND FOR WHAT AMOUNT OF GOVERNMENT S PARTICIPATION.

W M TRAVER

Denver, Colorado

SEP 7 7 59 AM '30

8/31/56

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

August 29, 1956

224 New Customhouse
Denver 2, Colorado

Mr. Richard S. Hunt
Shavano Development Corporation
1402 Mile High Center
Denver 2, Colorado

Re: Docket DMEA 4194 (Uranium) (Poison Basin Mine) Carbon County, Wyoming

Dear Mr. Hunt:

This will acknowledge receipt of your letter dated August 28, 1956 which transmitted the original and five copies of the Subordination Agreement executed by Aubrey R. Stanton on the Jo. No. 26 unpatented lode mining claim.

This is to advise that we have not as yet received the Subordination Agreement covering the Matt claims Nos. 1-6 to be executed by Benson and Weber.

Will you please advise when we may expect to receive the Subordination Agreement on the Matt claims Nos. 1-6, because when we receive this Agreement, we will be able to forward the proposed contract for the Operator's signature.

Very truly yours,

W. M. TRAVER,

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

HMC:ab

cc: Sec. Op. Comm. (2)
Townsend
Docket 4194
Chron.

8/20/56

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

August 17, 1956

224 New Customhouse
Denver 2, Colorado

Mr. Richard S. Hunt
Shawano Development Corporation
1402 Mile High Center
Denver 2, Colorado

Re: Docket DMEA 4194 (Uranium) (Poison Basin Mine) Carbon County, Wyoming

Dear Mr. Hunt:

Your letter to this office dated July 26, 1956 stated that it was your understanding that the Subordination Agreement covering the Matt Claims Nos. 1-6 had been executed by Benson and Weber and was now in the hands of Benson's attorney. This is to advise that we have not as yet received the above-mentioned Subordination Agreement or the one covering the Jo Claim No. 26 which was to be executed by Aubrey R. Stanton.

When we receive the above-mentioned Subordination Agreements, we will be in a position to forward the contract for the Operator's signature.

Very truly yours,

W. M. TRAVER,

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

HMC:ab

cc: Sec. Op. Comm. (2)
Townsend
Docket 4194
Chron.

RECEIVED
AUG 30 1956

7/30/56

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

RECEIVED
JUL 30 1956

224 New Customhouse
Denver 2, Colorado

July 27, 1956

Mr. Richard S. Hunt
Shawano Development Corp.
1402 Mile High Center
Denver 2, Colorado

Re: Docket DMEA 4194 (Uranium)
(Poison Basin Mine)
Carbon County, Wyoming

Dear Mr. Hunt:

This will acknowledge receipt of your letter dated July 26, 1956, and the original and five executed copies of Subordination Agreement by Carlie Jebens.

When we receive the copies of the Subordination Agreement covering the Matt Claims 1 through 6 executed by Benson and Weber and the Subordination Agreement covering the Jo Claim No. 26 executed by Aubrey R. Stanton, we will be in a position to forward the contract for the Operator's signature.

Very truly yours,

W. M. TRAVER,

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

HMC:bh

cc-Sect. Op. Comm. (2)
Townsend w/Subordination Agreement signed by Carlie Jebens on Jo Claims Nos. 23 and 24
Docket DMEA 4194
Chron.

SHAWANO DEVELOPMENT CORPORATION

1402 MILE HIGH CENTER * DENVER 2, COLORADO

RECEIVED
JUL 30 1956

July 26, 1956

DMEA
Date Rec'd.
JUL 27 1956

BUREAU OF MINES
Denver Colorado

Defense Minerals Explorations Administration
224 New Custom House
Denver 2, Colorado

Attention of Mr. W. Traver, Executive Officer,
D.M.E.A. Field Team, Region III.

Gentlemen:

In Re: Docket D.M.E.A. No. 4194 (Uranium)
Poison Basin Mine--Carbon County, Wyoming.

You will find enclosed herewith an original and five copies of the Subordination Agreement executed by Carlie Jebens. His signature has been notarized.

At the present time, from the forms furnished to us under date of June 14, 1956, there is outstanding the one Subordination Agreement covering Matt Claims No. 1 through 6 which is to be executed by Benson and Weber. It is our understanding that this has been executed and is now in the hands of Benson's attorney, who will forward the instrument to me.

Thank you for your letter of July twenty-third, in which you enclosed the corrected copy of the Subordination Agreement covering Jo Claim No. 26 to be executed by Aubrey R. Stanton. We are forwarding this Agreement for signature, and when it is returned to us, we will immediately forward same to you.

Your assistance and co-operation is greatly appreciated.

Very truly yours,

SHAWANO DEVELOPMENT CORPORATION

Richard S. Hunt

Richard S. Hunt

RSH:BH
Enclosures

cc to Mr. A. K. Swann

7-27-56

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

RECEIVED
JUL 27 1956

July 23, 1956

224 New Customhouse
Denver 2, Colorado

Mr. Richard S. Hunt
Shannon Development Corporation
1402 Mile High Center
Denver 2, Colorado

Re: Docket DMEA 4194 (Uranium) Shannon
Poison Basin Mine, Carbon County,
Wyoming

Dear Mr. Hunt:

This will acknowledge receipt of your letter dated July 19, 1956 and the Subordination Agreements signed by Matt and P. S. Weber covering the Leah Claims Nos. 19, 20, 21, 22; Subordination Agreements covering the Jo No.27 Claim executed by Earl and Sylvia Beeler; and the Subordination Agreements covering the Poison Basin Claims Nos. 5-13, North Slope Claims Nos. 9, 9W, 8, and 8W, Hope Claims Nos. 3, 4, 5, 6, 7, and 14 executed by LeRoy Benson.

Enclosed are the original and five copies of a Subordination Agreement on the Jo No. 26 claim which according to your letter is the only claim which Mr. Stanton owns a 5% royalty. When we receive the Stanton Subordination Agreement on the Jo No. 26 claim and the remaining Subordination Agreements furnished you in our letter of June 21, 1956, we will continue to process your application.

Very truly yours,

W. M. TRAVER,

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

Enclosure
HMC:ab
cc: Sec. Op. Comm. (2)
Townsend w/copies of executed Sub. Agree. signed by Earl C. & Sylvia Beeler; Matt and P. S. Weber; and LeRoy Benson
Docket 4194
Chron.

SHAWANO DEVELOPMENT CORPORATION
1402 MILE HIGH CENTER * DENVER 2, COLORADO

July 19, 1956

DMEA
Date Rec'd
JUL 23 1956

BUREAU OF MINES
Denver, Colorado
RECEIVED
JUL 27 1956

Defense Minerals Explorations Administration
224 New Custom House
Denver 2, Colorado

Attention of Mr. W. Traver, Executive Officer,
D.M.E.A. Field Team, Region III

Gentlemen:

In Re: Docket D.M.E.A. 4194 (Uranium)
Poison Basin Mine--Carbon County, Wyoming.

Enclosed please find five executed copies of the subordination agreement covering the Jo No. 27 claim executed by Earl and Sylvia Beeler, husband and wife. Enclosed also are five copies of the subordination agreement executed by Matt and P. S. Webber covering Leah Claims 19, 20, 21, and 22. The information supplied to you in my previous correspondence concerning the Jo No. 25 and 26 claims was erroneous in that Jo No. 26 is the only claim under which Mr. Stanton owns a 5 per cent royalty. Therefore, I am returning this subordination agreement and would appreciate your making a new agreement and forwarding same to me.

Also enclosed are subordination agreements covering Poison Basin No. 5 through 13; North Slope 9, 9W, 8, and 8W; Hope 3, 4, 5, 6, 7, and 14; which have been executed by Leroy Benson.

The remaining subordination agreements furnished to me in your letter of June twenty-first are being circulated, and we believe we will have them in our office within the coming week.

Very truly yours,

SHAWANO DEVELOPMENT CORPORATION

Richard S. Hunt
BH

Richard S. Hunt

RSH:BH
Enclosures

cc to Mr. A. K. Swann

700

FILE COPY

Surname:
Ching
Thompson
Selledge
Johnson

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

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

19 JUL 1958

Re: Docket No. DMEA-4194 (Uranium & Selenium)
Shawano Development Corporation
Shawano Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Traver:

Enclosed are the original and five copies of a proposed long-form contract between the Government and Shawano Development Corporation, unsigned, undated, and unnumbered. The contract consists of Form NF-200, Annex I, Exhibit "A," and map (Figure 5). Also enclosed are two extra copies each of Annex I, Exhibit "A," and map (Figure 5) for the use of the Field Team.

If you and the Operator find the contract satisfactory, it is ready for the signature of the Operator, provided that the following requirements are met:

1. The insertion of a suitable final starting date under Article 3;

2. Receipt by you of the Subordination Agreements referred to in Article 2(c) of the contract.

Please secure the signature of the Operator but do not date the contract. Return all copies to this office for final execution by the Administrator.

The program recommended by the examiners has been modified as follows:

1. The two 400-foot holes in Area 1 are not justified since the Applicant has drilled 200 holes in this general area and has definitely concluded that no ore is likely to be found below a depth of 105 feet. This conclusion is supported by the fact that a number of holes were drilled 300 feet or more through the basal conglomerate with negative results. In lieu of these two holes there are substituted three holes 105 feet deep to explore this area in the first stage.

2. In place of two samplers for six weeks, costing $900.00, there has been substituted one sampler for two months, costing $600.00. The allowance of $983.00 for radiometric probing has been eliminated since a supervising geologist or engineer has been provided for two months and should be expected to do the probing.

3. The 500 assays for $U_3O_8$ and $V_2O_5$, costing $2,500.00 appear to be far in excess of requirements. There has been substituted 100 assays for $U_3O_8$ only, costing $350.00. Provisions were added for selenium assays as recommended by the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosures

APPROVED:

P. F. Yopes (JHB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

P.S. Since we have sufficient uncommitted funds to execute this contract, it has been signed, dated, and numbered.

MChing/izm 7-10-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

Docket Copy
700

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

July 10, 1956

Memorandum

To: The Files

From: Michael Ching, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Docket No. DMEA-4194 (Uranium & Selenium)
Shawano Development Corporation
Shawano Poison Basin Mine
Carbon County, Wyoming

With reference to the Report of Examination, dated June 8, 1956, on the subject property, the recommended program has been modified as follows:

(1) In Area 1 the examiners propose two 400-foot holes, to be drilled through the basal conglomerate of the Browns Park formation, to explore for uranium-bearing strata other than that ~~is~~ already known, and to provide lithological information. However, the Applicant has already drilled 200 holes in this general area and has definitely concluded that no ore is likely to be found below a depth of 105 feet. Furthermore, a number of these holes were drilled 300 feet or more through the basal conglomerate with negative results. Since all other drilling proposed by the examiners is limited to the known ore horizon, it is concluded that the drilling of these two holes through the basal conglomerate is not justified. In lieu of 2 holes 400 feet deep there are substituted 3 holes 105 feet deep to explore this area. (Also see W. P. William's memorandum of June 20, 1956 on this).

(2) Under costs making up the Incidental Allowance, in place of 2 samplers for 6 weeks, costing $900.00 there has been substituted one sampler for 2 months, costing $600.00. The allowance of $983.00 for radiometric probing has been eliminated since a supervising geologist or engineer has been provided for two months, and should be expected to do the probing.

(3) The examiners provide for 500 assays for $U_3O_8$ and $V_2O_5$, costing $2,500.00. This is far in excess of requirements and has been cut down to 100 assays for $U_3O_8$ only, costing $350.00. Provisions were added for 120 selenium assays at $6.00 each in accordance with the Field Team's recommendation.

As modified the Incidental Allowance was arrived at as follows:

Total drill footage - 9,345

| | Total Cost | Cost/ft. |
|---|---|---|
| Supervision ( 2 mos. @ $500/mo.) | $1,000.00 | $0.11 |
| Sampler (2 mos. @ $300/mo.) | 600.00 | 0.06 |
| Supplies | 350.00 | 0.04 |
| Miscellaneous | 200.00 | 0.02 |
| TOTAL ..... | $2,150.00 | $0.23 |

Michael Ching

Michael Ching

Surname copy

Ching
Ellis

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

June 28, 1956

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metals Division

Subject: Docket No. DMEA-4194 (Uranium and Selenium)
Shawano Development Corporation
Shawano Poison Basin Mine
Carbon County, Wyoming

Will you kindly prepare a long-form contract between the Government and the subject applicant in accordance with the attached draft.

Nine copies of the map (Figure 5) are attached.

The Subordination Agreements referred to in Article 2 of the contract form are being secured by the Field Team and are not yet available.

Ernest Wm. Ellis

Ernest Wm. Ellis

MChing:ai
6-28-56
cc to: Docket
Code 700
Mr. Ching

DRAFT
MChing:ai
6-28-56

MF-200
(Revised June 1954)

Docket No. DMEA 4194

Commodity Uranium and Selenium

Contract No. Idm-E

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

## EXPLORATION PROJECT CONTRACT[1]

It is agreed this ..... day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Shawano Development Corporation, a Florida Corporation, whose mailing address is 430 Park Avenue New York, New York, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and Map (Figure 5)

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

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

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] owner of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of an assignment, [6] ..... recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: Royalty claims of LeRoy Benson, ~~Walt~~ Matt Weber, Carle Jebbens, ~~Andrew~~ Aubrey R. Stanton, Earl C. Beeler, Sylvia Beeler and P. S. Webber

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

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

of the land (lessor, seller, optionor, etc.), are attached, as follows: Subordination Agreements of above-mentioned royalty claimants.

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Uranium and Selenium. The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before October 31, 1956 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall either have completed the work or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A." See Article 13.

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $ 15,900.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $ 11,925.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; but except for any such necessary excesses in categories, subcategories, or items thereunder the Operator is not obligated to incur more than his agreed percentage of the estimated, total allowable cost of the work. **See Article 13.**

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

*Subcategory (c)—Labor.*

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9. **See Article 13.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—

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

(b) To the extent that costs are set forth in Exhibit "A" as "Fixed Unit Costs" they are in lieu of the actual costs that otherwise would be allowable costs of the project under Article 6 of the contract. The Government will contribute to the fixed unit costs as they accrue, on the basis of units of work actually performed. The fixed unit costs include all costs of the work necessary to complete the project.

(c) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon, is deleted.

(d) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work except as otherwise provided in Exhibit 'A' with respect to stages of work."

(e) In the last sentence of Article 6(c) the words "Article 8" are substituted for the words "Article 9."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By .....

.....
(Operator)

By .....

.....

---

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

.....

[ CORPORATE SEAL ]

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

DRAFT
MChing/ai
5-28-56

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
DOCKET NO. DMEA-4194

ANNEX I

The land referred to in Article 2 of the Contract consists of 47 contiguous mining claims in sec. 3, 4, and 5, T. 12 N., R. 92 W., and secs. 32, 33 and 34, T. 13 N., R. 92 W., 6th P. M. and B., Carbon County, Wyoming. The land is shown on the map entitled "Figure 5 — Location of Drill Holes For Exploration Project (Revised) DMEA-4194," attached hereto and made a part hereof.

The notices of location of the claims are filed for record in the Office of the County Clerk at Rawlins, Wyoming as follows:

| Name of claim | Book | Page |
|---|---|---|
| Poison Basin No. 5 | 339 | 97 |
| Poison Basin No. 6 | 339 | 98 |
| Poison Basin No. 7 | 339 | 99 |
| Poison Basin No. 8 | 339 | 100 |
| Poison Basin No. 9 | 339 | 101 |
| Poison Basin No. 10 | 339 | 102 |
| Poison Basin No. 11 | 339 | 103 |
| Poison Basin No. 12 | 339 | 104 |
| Poison Basin No. 13 | 339 | 105 |
| North Slope No. 9 | 339 | 109 |
| North Slope No. 9W | 339 | 113 |
| North Slope No. 8 | 339 | 107 |
| North Slope No. 8W | 339 | 111 |
| Hope No. 3 | 339 | 117 |
| Hope No. 4 | 339 | 118 |
| Hope No. 5 | 339 | 119 |
| Hope No. 6 | 339 | 120 |
| Hope No. 7 | 339 | 121 |
| Hope No. 14 | 339 | 127 |
| Matt No. 1 | 339 | 129 |

| Name of claim | Book | Page |
|---|---|---|
| Matt No. 2 | 339 | 131 |
| Matt No. 3 | 339 | 133 |
| Matt No. 4 | 339 | 135 |
| Matt No. 5 | 339 | 137 |
| Matt No. 6 | 339 | 139 |
| Leah No. 19 | 339 | 384 |
| Leah No. 20 | 339 | 386 |
| Leah No. 21 | 339 | 388 |
| Leah No. 22 | 339 | 390 |
| Jo No. 10 | 339 | 532 |
| Jo No. 11 | 339 | 533 |
| Jo No. 12 | 339 | 534 |
| Jo No. 13 | 339 | 535 |
| Jo No. 14 | 339 | 536 |
| Jo No. 15 | 339 | 537 |
| Jo No. 16 | 339 | 538 |
| Jo No. 17 | 339 | 539 |
| Jo No. 18 | 339 | 540 |
| Jo No. 21 | 339 | 541 |
| Jo No. 22 | 339 | 542 |
| Jo No. 23 | 339 | 543 |
| Jo No. 24 | 339 | 544 |
| Jo No. 25 | 339 | 545 |
| Jo No. 26 | 339 | 547 |
| Jo No. 27 (Poison Wash No. 5) | 339 | 145 |
| Jo No. 28 | 339 | 548 |
| Jo No. 29 | 339 | 549 |

ROUGH DRAFT
MChing/ism
6-28-56

EXPLORATION PROJECT CONTRACT
SHAWANO DEVELOPMENT CORPORATION
Docket No. DMEA-4194

EXHIBIT "A"

Description of the Work

General Provisions

The work consists of exploration by rotary non-core drilling to test the uranium-selenium-bearing sandstone of the Browns Park formation of Miocene age. The location of the work is indicated on the attached map (Figure 5).

All holes shall be drilled approximately 105 feet deep and have a minimum diameter of 2½ inches. Drilling is expected to be by both dry and wet methods. In dry-drilling cuttings shall be collected with a Duclone sample collector or equivalent unit. In wet drilling adequate facilities shall be provided for collecting all the cuttings. In either case samples shall be taken at 2-foot intervals and checked for radioactivity. All samples indicating significant mineralization shall be analyzed chemically for uranium, and selenium. The Operator may also make qualitative field tests wherever indications appear favorable for selenium, and samples indicating the presence of selenium shall be analyzed quantitatively. A portion of all samples taken shall be properly labeled and stored for inspection and disposition by the Government.

All drill holes shall be logged geologically and probed radiometrically and the record of such logging and probing, together with certified copies of all assay certificates, shall be submitted with the Operator's monthly progress reports.

All bulldozing shall be done with a D-7 bulldozer or equivalent unit.

The project work shall be supervised at all times by a competent mining engineer or geologist, who shall devote full time to the project.

The location, direction, inclination and extent of all project work are subject to the approval of the Government.

The work is divided into two stages as hereinafter described. The Operator shall complete Stage I, and shall perform as much of the work under Stage II as the Government approves in writing in advance.

Stage I

The work in this stage is located in five separate areas as indicated on the map (Figure 5). The pattern and spacing of the holes in each area shall follow as closely as possible those shown on the map, but no hole shall be drilled closer than 50 feet from any existing drill hole. Access roads and drill sites shall be prepared by bulldozer as required. A total of 55 holes aggregating 5,775 feet are divided as follows:

Area 1 drilling consists of 3 holes approximately 600 feet apart, aggregating 315 feet.

Area 2 drilling consists of 5 holes on 150-foot centers, aggregating 525 feet.

Area 3 drilling consists of 21 holes on 200-foot centers, aggregating 2,205 feet.

Area 4 drilling consists of 9 holes on 200-foot centers, aggregating 945 feet.

Area 5 drilling consists of 17 holes on 500 by 600-foot centers, aggregating 1,785 feet.

Stage II

Prepare drill sites and drill not more than 34 holes aggregating not more than 3,570 feet as offsets to Stage I holes showing significant mineralization. Stage II holes shall be drilled at least 75 feet from any previously drilled hole.

## Estimated Cost of the Project

### Stage I

**Actual Costs**

Category (1) Independent Contracts

| | | |
|---|---|---|
| 3,850 ft. dry non-core drilling @ $1/ft. | $3,850.00 | |
| 1,925 ft. wet non-core drilling @ $1.75/ft. | 3,368.75 | |
| 70 hrs. bulldozing @ $10/hr. | 700.00 | |
| Categories (2) through (7) None | - | |
| Total ..... | | $7,918.75 |

**Fixed Unit Costs** (See Article 13)

| | | |
|---|---|---|
| Incidental allowance for each foot of non-core drilling completed 5,775 ft. @ $0.23/ft. | $1,328.25 | |
| 50 chemical analyses for uranium @ $3.50 each | 175.00 | |
| 60 chemical analyses for selenium @ $6/each | 360.00 | |
| Total ..... | | $1,863.25 |

Estimated Total Cost of Stage I .....$9,782.00

### Stage II

**Actual Costs**

Category (1) Independent Contracts

| | | |
|---|---|---|
| 2,380 ft. dry non-core drilling @ $1/ft. | $2,380.00 | |
| 1,190 ft. wet non-core drilling @ $1.75/ft. | 2,082.50 | |
| 30 hrs. bulldozing @ $10/hr. | 300.00 | |
| Categories (2) through (7) None | - | |
| Total ..... | | $4,762.50 |

**Fixed Unit Costs** ( See Article 13)

| | | |
|---|---|---|
| Incidental allowance for each foot of non-core drilling completed, 3,570 ft. @ $0.23/ft. | $821.10 | |
| 50 chemical analyses for uranium @ $3.50 each | 175.00 | |
| 60 chemical analyses for selenium @ $6.00 each | 360.00 | |
| Total ..... | | $1,356.10 |
| Estimated Total Cost of Stage II ..... | | $6,118.60 |

**SUMMARY OF COSTS**

| | |
|---|---|
| Estimated Total Cost of Stage I ..... | $9,782.00 |
| Estimated Total Cost of Stage II ..... | $6,118.60 |
| Estimated Total Cost of the Project (rounded) ... | $15,900.00 |
| Government Participation @ 75% ..... | $11,925.00 |

6-26-56

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

June 22, 1956

RECEIVED
JUN 25 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: Elmo G. Knutson, Bureau of Mines Member
Selenium Commodity Committee

Subject: Joint report of examination, DMEA Docket 4194 (Uranium-selenium), Shawano Development Corporation, Shawano Poison Basin mine, Carbon County, Wyoming

I have reviewed the report of examination, DMEA Docket 4194, (Uranium-selenium), Shawano Development Corporation, Shawano Poison Basin mine, Carbon County, Wyoming, dated June 8 and received in this office June 22, 1956.

The field examiners recommend a modified exploration program consisting of 6,260 feet of drilling in 54 holes in stage I, and depending on the results of stage I, stage II would be drilled a maximum of 3,570 feet in 34 holes. The estimated cost of the project is $19,852 with an additional $600.00 for a maximum of 100 quantitative selenium samples.

I concur in the recommendation made by the field examiners.

Elmo G. Knutson

Elmo G. Knutson

6/22/56 ai

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

June 21, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: James Paone, Bureau of Mines Alternate Member
Uranium Commodity Committee

Subject: Report of examination, DMEA Docket 4194 (Uranium-selenium), Shawano Development Corporation, Shawano Poison Basin mine, Carbon County, Wyoming

I have reviewed the report of examination, DMEA Docket 4194, Shawano Development Corporation, Shawano Poison Basin mine, Carbon County, Wyoming, dated June 8 and received in this office June 18, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The field examiners recommend a modified exploration program consisting of 6,260 feet of drilling in 54 holes in Stage I and 3,570 feet of drilling in 34 holes in Stage II. The total estimated cost of the project is $19,852. Government participation at 75 percent would be $14,889.

Inasmuch as selenium has been added to the list of critical minerals or metals for which DMEA assistance can be granted, it is recommended that the contract be amended to allow for selenium assays.

We concur in the recommendation made by the field examiners.

James Paone

James Paone

RECEIVED
JUN 22 1956

6/25/56 ai

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

June 21, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman, Operating Committee, DMEA

From: Field Team, Region III

Subject: Docket DMEA 4194 (Uranium) Shawano Development Corporation, (Shawano Poison Basin Mine), Carbon County, Wyoming

Enclosed is the following information submitted by the Applicant's representatives:

1. A letter dated May 17, 1956 from Paul H. Keating to which is attached an Amended Notice of Location of Poison Basin No. 5 mining claim, Amended Notice of Location of Poison Wash claim No. 5, and a page of recording data on the Poison Basin claims Nos. 7-12, inclusive *

2. Two copies of a letter dated June 19, 1956 from Richard S. Hunt giving the royalty information on the Jo and Leah claims.

Subordination Agreements on the following claims were forwarded the Applicant to obtain the required signatures on the Jo. 23 and 24; Jo 25 and 26; Jo 27 and the Leah claims Nos. 19-22, inclusive.

This completes all of the Subordination Agreements that will be required and when the signed copies are received by this office, they will be forwarded to you.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

* filed on left side with application

Enclosures

GARFIELD AND PASTERNAK
OIL PRODUCERS
MILE HIGH CENTER · SUITE 1402
DENVER 2, COLORADO

DMEA
Date Rec'd.
JUN 21 1956
BUREAU OF MINES
Denver, Colorado

June 19, 1956

RECEIVED
JUN 25 1956

Mr. W. M. Traver
Executive Officer, D.M.E.A.
Room 224, New Customs House
Denver, Colorado

4194

Re: D.M.E.A. Docket ~~4914~~
Shawano Development Corporation
Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Traver:

Your letter of June 14, 1956, was forwarded to me by Shawano Development Corporation of New York City, as I have in the past handled the various details in connection with the application regarding the above captioned.

Insofar as clarification as to the overriding royalty interests are concerned, I am listing below the various people who now have in their possession certain overriding royalty interests reserved unto themselves in the assignment of various claims, which instruments are all of record in the County Recorder's Office, Carbon County, City of Rawlins, Wyoming.

After carefully re-checking all of the records concerning the Jo Claim group, I find that there was an erroneous report in that I had furnished Professor Keating with the information that there was a 5 per cent royalty on Jo claims 10 through 18 inclusive. However, I have found, after careful check, that there is no royalty reservation whatsoever insofar as Jo claims 10 through 18 are concerned.

Insofar as the following Jo claims are concerned, the following is a list of the amount of royalty reserved by each of the individuals:

Jo No. 21--no royalty reservations

Jo No. 22--no royalty reservations

Jo No. 23--5% royalty reserved by
Carle Jebbens of Baggs, Wyoming

Jo No. 24--5% royalty reserved by
Carle Jebbens of Baggs, Wyoming

Jo No. 25--5% royalty reserved by
Aubrey R. Stanton of Baggs, Wyoming

Jo No. 26--5% royalty reserved by
Aubrey R. Stanton of Baggs, Wyoming

Jo No. 27--10% royalty reserved by
Earl C. Beeler (5%) and
Sylvia Beeler (5%)

Jo No. 28--no royalty reservation

Jo No. 29--no royalty reservation

Insofar as the Leah claim group is concerned, the following is a list of the royalty reservations:

Leah No. 19, 20, 21, 22, each have a 5% royalty reservation reserved by Matt Webber and P. S. Webber of Baggs, Wyoming.

I hope that this information will fulfill your requirements. Should you desire anything further, kindly direct your correspondence to this office, as the files regarding these properties are at this address.

My sincere apologies for the delay in getting this information to you.

Very truly yours,

GARFIELD and PASTERNAK

Richard S. Hunt

Richard S. Hunt
Manager of Lands

RSH/tjr

cc: to Mr. Robert J. Eveleigh
cc: to Professor Keating

IN REPLY REFER TO:

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

RECEIVED
JUN 20 1956

June 20, 1956

Memorandum

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

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

Subject: Review of Field Examination Report, DMEA 4194, (Uranium-Selenium), Shawano Development Corp., Shawano Poison Basin mine, Carbon County, Wyoming.

The examining team concludes that prospects are good for discovering new uranium and selenium ore reserves on the subject property. The examiners recommend approval of a much reduced and modified drilling project. The work is proposed to be done in two stages in five separate, favorable areas.

The proposed drilling, with hole spacing ranging from 100 to 600 feet in Stage I appears to be well planned. One, or two points, however, are not completely clear in the examining team's report:

1. The relatively deep (350 to 400 feet) drilling in Area I "will explore for the presence of other uranium-bearing strata in the lower part of the formation." Does this drilling represent prospecting with a non-specific and indefinite target? The field report further states," --- the drill holes would be very helpful in determining the structure --- and would provide valuable information concerning the lithology of the Browns Park formation." Is it appropriate for DMEA to drill for Geologic information? On the other hand, using a deep hole or two at the outset of a drilling project for stratigraphic information and control is sound and common practice.

2. Figure 5, Field Team report, shows areas of anomalous radioactivity on claims Matt 3 and North Slope 9W; yet no drilling is proposed on or near these areas. It is not clear why the two anomalous areas are excluded from drilling.

I agree with the examining team's recommendations for approval of the modified project, but with the exception of the two reservations noted above.

W. P. Williams

W. P. Williams

700

FILE COPY
Surname:
Ching
Martin

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

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

Re: Docket No. DMEA-4194 (Uranium & Selenium)
Shawano Development Corporation
Shawano Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Traver:

Enclosed are two copies of a letter dated June 8, 1956, from the subject Applicant and two copies of our reply of even date, which are self-explanatory.

Hereafter please consider selenium as covered by the subject application. The Field Team may wish to include specific provisions related to selenium in the event a contract is recommended.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee

Enclosures

APPROVED:

/s/ Robert W. Geehan
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

MChing/izm 6-13-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.C.S.

700

FILE COPY
Surname:
Ching
Zeja
Kilgaard
Mantiss
Hjelmen

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

JUN 13 1956

Mr. R. J. Eveleigh, Treasurer
Shawano Development Corporation
430 Park Avenue
New York, New York

Re: Docket No. DMEA-4194 (Uranium & Selenium)
Shawano Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Eveleigh:

Reference is made to your letter of June 8, 1956, addressed to Mr. Lawrence Houk, regarding inclusion of selenium in the subject application for Government aid in an exploration project.

We are now considering the above-docketed application as covering both uranium and selenium.

We are cognizant of the difficult winter working conditions in Carbon County and shall continue to process your application as expeditiously as possible.

Sincerely yours,

C. O. Mittendorf

Administrator

MChing/izm 6-13-56
cc to; Docket
Code 700
Mr. Ching
Admr.'s Reading File
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
DMEA Field Team, Reg. III (2)

R.C.

6/11/56 gla

RECEIVED
JUN 11 1956

shawano DEVELOPMENT CORPORATION

430 PARK AVENUE NEW YORK PL 9-3366

June 8, 1956

Mr. Lawrence Houk
Defense Minerals Exploration Administration
Department of Interior
Washington 25, D. C.

Dear Mr. Houk:

With reference to the announcement just made by your Administration that assistance will be given for exploration for selenium, you will find on record that Shawano Development Corporation filed an application in January 1956 for assistance in exploring of our properties near Baggs, Wyoming. This application covers uranium and selenium. I am enclosing a copy of this application.

I should like to bring your attention to Page 5 of the detailed information supplied with Form MF-103, Section 52A, in which we state that the "area concerned in this application to the Defense Minerals Exploration Administration contained selenium to an important degree."

We have undertaken a considerable amount of field work in reference to the selenium content of this area. Dr. O. A. Beath, Chairman of the Research Chemistry Department of the University of Wyoming, has conducted extensive tests of our properties and it is his belief that a concentrated exploration program will uncover a commercial quantity of selenium ore. We have used a field test developed by Dr. Beath to determine the concentration of selenium in the ore and through Professor Paul H. Keating, Colorado School of Mines, we are developing an instrument which we feel will be a great help in the distinguishing and locating of selenium bearing ores.

In the light of your announcement placing selenium exploration on the eligibility list for government assistance we would appreciate your recognizing the early date of our filing for such assistance.

We have been informed by Professor Keating that he has completed all supplementary documentation which your Denver office has requested. He also states that your field teams have completed their examinations of the properties.

Due to the weather conditions of the area our mining operations are confined to the summer months and the early completion of the processing of this loan application is a matter of considerable urgency. We believe that your announcement on selenium may justify your granting us a priority on this application and we would therefor like to request that you assist us in this direction to the best of your ability.

We remain at your disposal for any further information should you require it.

Yours very truly,

R. J. Eveleigh, Treasurer

bh

Mr. Ellis talked to Mr. Hughes of Shawano about this on June 12.

MC.

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

RECEIVED
JUN 18 1956

June 14, 1956

224 New Customhouse
Denver 2, Colorado

Shawano Development Corporation
430 Park Avenue
New York, New York

Re: Docket DMEA 4194 (Uranium) Shawano Poison Basin Mine, Carbon County, Wyoming

Gentlemen:

Enclosed are the original and six copies of a Subordination Agreement on the Poison Basin claims 5-13, inclusive, North Slope 8, 8W, 9, 9W claims, Hope 3-7, inclusive, and Hope No. 14 claims. According to the information submitted to this office in your application, an overriding royalty on the above-mentioned claims is held by LeRoy Benson. Mr. Benson, therefore, should sign and return all copies of the Subordination Agreement to this office.

Also enclosed are the original and five copies of a Subordination Agreement on the Matt Nos. 1-6, inclusive, mining claims which your application indicates an overriding royalty is held by LeRoy Benson and Matt Weber. All copies of the Subordination Agreement on the Matt claims should, therefore, be signed by LeRoy Benson and Matt Weber and returned to this office.

Further clarification is needed on the overriding royalty on the Leah Claims 19-22, inclusive, and the Jo Claims Nos. 10-18, inclusive, and the Jo Claims Nos. 21-29, inclusive. Your representative, Paul Keating, is out of the city, but in a letter to us before his departure, he stated that any additional information we might require could be obtained from Richard S. Hunt, 1409 Mile High Center, telephone AM6-0636. Mr. Hunt's office was contacted by telephone, and they promised to forward this office the required information on the above-mentioned Leah and Jo Claims. When we receive this information, we will prepare the necessary Subordination Agreements to include the Leah and Jo Claims and forward them to you to obtain the required signatures.

Very truly yours,

Enclosures

HMC:ab

W. M. TRAVER,

cc: Chair. Op. Comm. (2)
Docket 4194
Chron.

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

6/19/56
A.J.

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

RECEIVED
JUN 15 1956

June 13, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, DMEA Docket 4194 (Uranium-Selenium) Shawano Development Corporation (Shawano Poison Basin mine), Carbon County, Wyoming

Enclosed are the original and three copies of a joint engineering and geologic Report of Examination on the subject property.

The examiners recommend a modified exploration program at a total estimated cost of $19,852.00. We concur in this recommendation.

Since selenium has been added to the list of critical minerals or metals for which DMEA aid can be granted, we recommend the addition of $600.00 to the contract for a maximum of 100 quantitative selenium samples.

Nine extra copies of Figure 5 are attached for possible use in the contract.

A Subordination Agreement is being prepared on the Poison Basin, North Slope, and Hope claims for the signature of LeRoy Benson. Another Subordination Agreement is being prepared on the Matt claims for the signatures of LeRoy Benson and Matt Weber. The Applicant is being requested to furnish the names of the parties holding royalty claims against the Leah and Jo claims. When this information is received from the Applicant, we will prepare Subordination Agreements for the Leah and Jo claims which are to be included in the exploration program.

DMEA Field Team, Region III

Reviewed by
DMEA OPERATING COMMITTEE
6-18-56
(date)

By W. M. Traver
W. M. Traver
Executive Officer

Enclosures

ON-SITE EXAM. REPORT

RECEIVED

JUN 15 1956

Region III

TRANSMITTED

JUN 13 1956

Building 20
Denver Federal Center
Denver 2, Colorado
June 8, 1956

DMEA
Date Rec'd.

JUN 12 1956

BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 4194 (Uranium-selenium), Shawano Development Corp., Shawano Poison Basin mine, Carbon County, Wyoming

Enclosed are the original and 9 copies of a joint examination report by R. C. Vickers, U. S. Geological Survey, and C. R. Garrett, Jr., U. S. Bureau of Mines, in which a limited program of exploration on the subject property is recommended.

The applicant's program of close-spaced drilling, estimated to cost $481,920 was considerably reduced, and a two-stage program estimated to cost $19,852 is recommended. The revised program includes drilling on the Poison Basin claims Nos. 7 to 12, inclusive, not included in the original application. The applicant's representative agreed to include those claims in the ground to be subordinated.

We concur with the conclusions and recommendations in the enclosed report.

It is our understanding that selenium has been, or is to be, included in the list of critical minerals or metals for which DMEA aid can be granted. If we are correct in assuming that Government assistance in exploring for selenium is appropriate, we recommend that the operator be required to make qualitative field tests for selenium at regular intervals and a sample be taken for a quantitative chemical analysis when the qualitative test is positive. A split of each sample that is prepared for a quantitative selenium analysis should be sent by the operator immediately to the Denver Experiment Station for the use of the Government. Six-hundred dollars should be allowed for a maximum of 100 quantitative selenium samples. The present charges in the Gas Hills area of Wyoming for selenium assays, are understood to be $8.00.

Reviewed by
DMEA OPERATING COMMITTEE
6-18-56
(date)

John F. Shaw
John F. Shaw
Supervising Mining Engineer

E. N. Harshman
E. N. Harshman
Member Field Team

cc 9
EN Harshman
DMEA 4194
Chron.
JFS/ch

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

RECEIVED
JUN 15 1956

DEFENSE MINERALS EXPLORATION ADMINISTRATION

JOINT REPORT OF EXAMINATION BY EXAMINING TEAM
REGION III

TRANSMITTED
JUN 13 1956

DMEA 4194

Shawano Development Corporation

Shawano Poison Basin Mine

Carbon County, Wyoming

Uranium and Selenium

Joint Engineering and Geologic Report

by

R. C. Vickers, Geologist
Geological Survey

C. R. Garrett, Jr., Mining Engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
6-18-56
(date)

June 8, 1956

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DMEA 4194

SHAWANO DEVELOPMENT CORPORATION
SHAWANO POISON BASIN MINE
CARBON COUNTY, WYOMING

RECEIVED
JUN 1 5 1956

## INTRODUCTION AND SUMMARY

Shawano Development Corporation, 430 Park Ave., New York, N. Y., organized under the state laws of Florida, applied for DMEA assistance to explore 47 contiguous unpatented mining claims in Carbon County, Wyoming, for uranium and selenium, pursuant to DMEA Order 1 under the Defense Production Act of 1950, as amended.

The application was reviewed by the Rare and Miscellaneous Metals Division of the DMEA in Washington, D. C. On March 20, 1956, it was referred to the DMEA Field Team, Region III, for an examination and a report on the property. The property was examined on May 1, 1956, by R. C. Vickers, geologist, Geological Survey, and C. R. Garrett, Jr., mining engineer, Bureau of Mines, accompanied by Paul H. Keating, consulting engineer, H. A. Henderson, company employee, and Gordon Kluge, assistant to Mr. Keating.

The application proposed exploration of the Browns Park formation for uranium and selenium by drilling 2,870 holes each 105 feet deep on a 100-foot grid pattern over 41 contiguous claims. The cost of the project for drilling 301,350 feet was estimated at $481,920.00 at an average of $1.60 per foot.

Development consists of an open pit approximately 100 feet long, 40 feet wide and a bank 35 feet high. A 3- to 6-foot bed of uranium ore has been mined netting 478.5 tons averaging 0.266 percent $U_3O_8$.

Radioactivity was observed in an area three-fourths of a mile to the north and in a small area approximately one-half mile to the southeast of the open pit.

The possibility of finding commercial deposits of uranium-bearing material at this property by additional exploration is considered good, and the examining team recommends DMEA assistance but in a reduced proposal comprising two stages. The first stage provides for drilling 54 holes for an aggregate of 6,260 feet. Depending upon the results of stage I, stage II will provide for offset drilling up to 34 holes for a maximum of 3,570 feet. The cost of the reduced program is estimated as $12,944.80 for stage I and $6,907.20 for stage II, or a maximum $19,852.00. The cost per foot of wet and dry drilling is estimated as $1.66. The Government participation would be 75 percent or $14,889.00.

A modified program of two stages was discussed with the applicant's representative and agreed upon. The applicant's representative agreed to drill the surface anomalies first, then to carry exploration further by drilling the property on a 500- by 600-foot grid pattern. Holes that contained significant mineralization, in the opinion of the DMEA representatives, would be offset by stage II holes.

A detailed analysis during preparation of the report indicated that further revision was desirable, but it was impossible to discuss

this with the applicant's representative because he was in the Philippine Islands and would not return for several weeks.

## ACKNOWLEDGMENTS

The examining team conferred with members of the Atomic Energy Commission who concurred that a limited exploration program is merited on the Shawano Poison Basin property.

Mr. Paul H. Keating, consulting engineer for Shawano Development Corporation supplied important information regarding the history of the property, present status, and engineering data.

## LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The property is in secs. 3, 4, and 5, T. 12 N., R. 92 W., 6th P. M., and secs. 32, 33, and 34, T. 13 N., R. 92 W., 6th P. M., Carbon County, Wyoming. The Shawano Poison Basin mine, located about 6 miles west of the small town of Baggs, Wyoming, is reached by turning left from U. S. Highway 330 about 1 mile north of Baggs to a well maintained county graveled road leading to the property. The nearest incorporated town is Craig, Colorado, which is 45 miles south of Baggs.

The topography is characterized by low relief with rolling dune-like hills and shallow valleys. Drainage is into the Little Snake River about 3 miles to the south. There is no timber on the property, although sage brush grows abundantly over most of the area. There are no streams or other surface water on the property, but water can

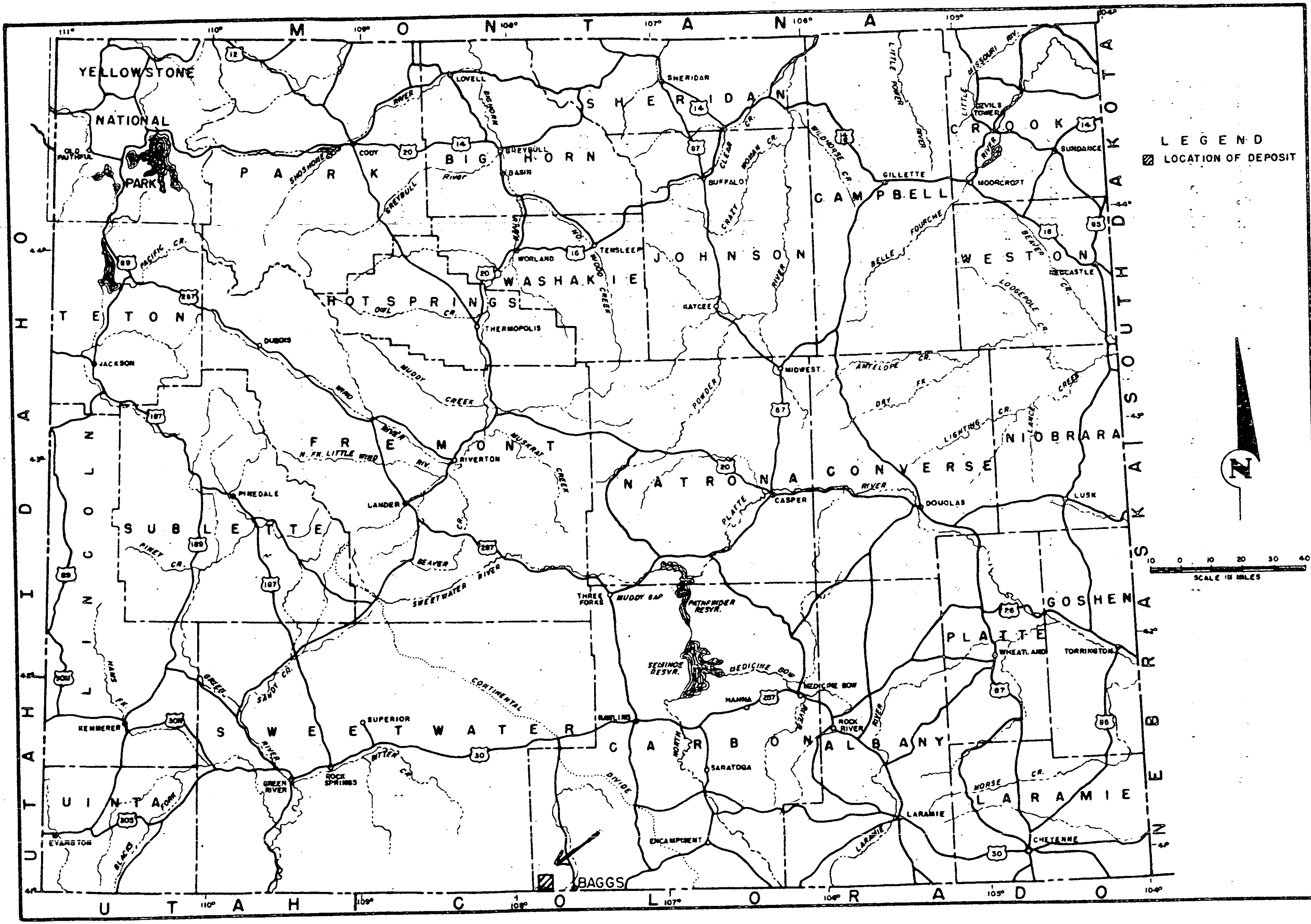


FIGURE 1 - LOCATION OF SHAWANO POISON BASIN PROPERTY, CARBON COUNTY, WYOMING. DMEA 4194

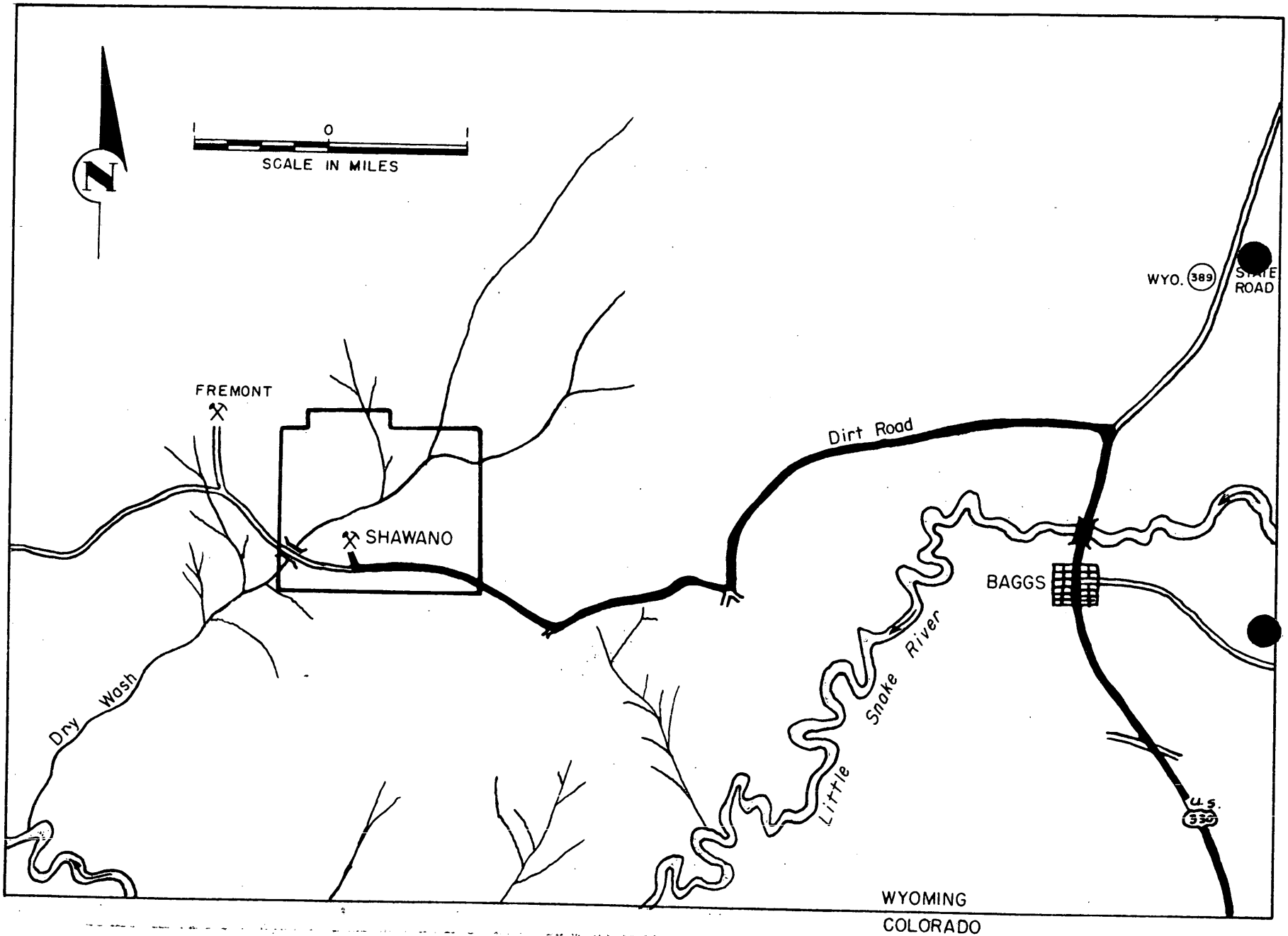


FIGURE 2 - SHAWANO POISON BASIN PROPERTY AND ACCESS ROADS. DMEA 4194

be obtained from wells at relatively shallow depths. Exploratory drill holes encountered water between 70 and 90 feet. Water for drilling probably will have to be obtained from the Little Snake River.

The vegetation of this area reportedly is toxic to livestock. Investigations have shown that the vegetation and soil contain toxic quantities of selenium compounds in water-soluble form. Geological Survey Circular 344 warns that persons working in the area should take precautions to prevent inhalations of selenium-bearing dust while collecting and preparing samples. Selenium-bearing dust can be poison to human beings.

The climate is typical of the semi-arid regions of the Rocky Mountains with a wide variation of temperature and precipitation. The average annual precipitation is about 10 inches and most of it falls in a few intense storms during the summer and winter.

Common labor is reportedly fairly plentiful and some local men are experienced in the operation of dirt moving equipment.

Some supplies are obtainable in Baggs, but any equipment or operating supplies for a mining operation would have to be obtained from Craig, Grand Junction, or Denver, Colorado.

Electricity, if needed, would have to be supplied by portable power plants or by constructing transmission facilities to connect with Baggs power supply.

## HISTORY

Uranium minerals were found in the Poison Basin area on October 15, 1953, by members of the U. S. Geological Survey. Later an airborne radioactivity survey was made in the immediate area by the Atomic Energy Commission. During the following months a large portion of the area was staked, and, in the summer of 1954, Sapphire Petroleums, Ltd., obtained an option and lease on part of the land from LeRoy Benson. This Canadian company made an airborne survey of the area and performed a limited amount of exploratory drilling and trenching near the present Shawano Poison Basin mine. The Atomic Energy Commission auger-drilled 36 holes, 25 feet to 36 feet deep, on the Poison Basin claims. Sapphire Petroleums, Ltd., apparently was not satisfied by the findings and gave up the option.

Irving Pasternak, of Garfield and Pasternak, oil producers, acquired 238 claims in the Poison Basin area from the original locators some of which had previously been leased by Sapphire Petroleums, Ltd. Pasternak conveyed these 238 claims to the Baggs Uranium Corporation. On July 12, 1955, Baggs Uranium Corporation sold and conveyed this group of 238 mining claims to Shawano Development Corporation, a Florida corporation, who immediately began exploration on Poison Basin claim 10, the site of the present Shawano Poison Basin mine.

## PRODUCTION

Shawano Poison Basin mine commenced production on August 1, 1955, and operated until November 5, 1955, at which time operations were suspended because of bad weather. During this period, 478.55 tons of uranium ore averaging 0.266 percent $U_3O_8$ were produced from Poison Basin claim 10 and trucked about 140 miles to the Union Carbide Nuclear Company at Rifle, Colorado. Settlement for these shipments were made to the St. Michaels' College Foundation, Inc., operator for Shawano Corporation, Baggs Property (Appendix B).

The Fremont Uranium Corporation is operating and producing uranium ore from their property located approximately 1 mile northwest of the Shawano mine. Fremont acquired the property in November 1955 from Trace Elements Corporation and started producing uranium in April 1956. No data could be obtained on the Fremont production, but grade of ore shipped was reported to average 0.30 percent $U_3O_8$. At present, Fremont operations consist of one active open pit and one pit being stripped of overburden, each covering an area approximately 60 feet by 100 feet with about 10 feet to 20 feet of overburden. No other producing mines are in this area.

## OWNERSHIP

Shawano Development Corporation acquired, through sale and conveyance, 238 mining claims from Baggs Uranium Corporation. The claims are in several non-contiguous groups and cover a significant area in the southeastern portion of Washakie Basin of southern Wyoming.

List of claims sold and conveyed to Shawano Development Corporation from Baggs Uranium Corporation: (See Appendix A)

(a) Poison Basin claims (Benson), 17 in number

(b) The Margaret claims, 28 in number

(c) The Leah claims, 15 in number

(d) The Jo claims, 22 in number

(e) The Hope claims (Pasternak), 6 in number

(f) The Matt claims (Pasternak), 4 in number

(g) The Horse claims, 6 in number

(h) The Hope claims (Benson), 8 in number

(i) The Matt claims (Weber-Benson), 4 in number

(j) The Ruby claims, 9 in number

(k) Dixon-Stanton No. 2 claim, 1 in number

(l) Don claims, 6 in number

(m) Peter claims, 16 in number

(n) Posty claims, 32 in number

(o) Happy group of claims, 24 in number

(p) Barbara claims, 36 in number

(q) Red Creek claims, 4 in number

All claims are subject to 5 percent royalty, except Poison Wash claim No. 5 on which royalty is 10 percent.

Poison Wash claim No. 5 has been identified by more recent information as Jo claim No. 27, by an amended location.

The 47 contiguous mining claims included in this DMEA application are in the north-central portion of a group of 134 contiguous claims and are listed below including data filed in County Clerk's office, County Courthouse, Rawlins, Wyoming:

| Name of claim | Date | Book | Page | |
|---|---|---|---|---|
| Poison Basin No. 5 | 11/5/54 | 339 | 97 | |
| Poison Basin No. 6 | 11/5/54 | 339 | 98 | |
| Poison Basin No. 7 | 11/5/54 | 339 | 99 | |
| Poison Basin No. 8 | 11/5/54 | 339 | 100 | |
| Poison Basin No. 9 | 11/5/54 | 339 | 101 | |
| Poison Basin No. 10 | 11/5/54 | 339 | 102 | |
| Poison Basin No. 11 | 11/5/54 | 339 | 103 | |
| Poison Basin No. 12 | 11/5/54 | 339 | 104 | |
| Poison Basin No. 13 | 11/5/54 | 339 | 105 | LeRoy Benson |
| North Slope No. 9 | 11/5/54 | 339 | 109 | |
| North Slope No. 9W | 11/5/54 | 339 | 113 | |
| North Slope No. 8 | 11/5/54 | 339 | 107 | |
| North Slope No. 8W | 11/5/54 | 339 | 111 | |
| Hope No. 3 | 11/5/54 | 339 | 117 | |
| Hope No. 4 | 11/5/54 | 339 | 118 | |
| Hope No. 5 | 11/5/54 | 339 | 119 | |
| Hope No. 6 | 11/5/54 | 339 | 120 | |
| Hope No. 7 | 11/5/54 | 339 | 121 | |
| Hope No. 14 | 11/5/54 | 339 | 127 | |
| Matt No. 1 | 11/5/54 | 339 | 129 | |
| Matt No. 2 | 11/5/54 | 339 | 131 | LeRoy Benson |
| Matt No. 3 | 11/5/54 | 339 | 133 | Matt Webber |
| Matt No. 4 | 11/5/54 | 339 | 135 | |
| Matt No. 5 | 11/5/54 | 339 | 137 | |
| Matt No. 6 | 11/5/54 | 339 | 139 | |

| Name of claim | Date | Book | Page | |
|---|---|---|---|---|
| Leah No. 19 | 11/17/54 | 339 | 384 | Matt Webber and P. A. Webber |
| Leah No. 20 | 11/17/54 | 339 | 386 | |
| Leah No. 21 | 11/17/54 | 339 | 388 | |
| Leah No. 22 | 11/17/54 | 339 | 390 | |
| Jo No. 10 | 11/17/54 | 339 | 532 | No Royalty |
| Jo No. 11 | 11/17/54 | 339 | 533 | |
| Jo No. 12 | 11/17/54 | 339 | 534 | |
| Jo No. 13 | 11/17/54 | 339 | 535 | |
| Jo No. 14 | 11/17/54 | 339 | 536 | |
| Jo No. 15 | 11/17/54 | 339 | 537 | |
| Jo No. 16 | 11/17/54 | 339 | 538 | |
| Jo No. 17 | 11/17/54 | 339 | 539 | |
| Jo No. 18 | 11/17/54 | 339 | 540 | |
| Jo No. 21 | 11/17/54 | 339 | 541 | N.R |
| Jo No. 22 | 11/17/54 | 339 | 542 | N.R |
| Jo No. 23 | 11/17/54 | 339 | 543 | Carl Jibben |
| Jo No. 24 | 11/17/54 | 339 | 544 | |
| Jo No. 25 | 11/17/54 | 339 | 545 | Aubrey R. Stanton |
| Jo No. 26 | 11/17/54 | 339 | 547 | |
| Jo No. 27 (Poison Wash No. 5) | 11/5/54 | 339 | 145 | Earl C. Beeler, Silvia Beeler |
| Jo No. 28 | 11/17/54 | 339 | 548 | N.R. |
| Jo No. 29 | 11/17/54 | 339 | 549 | N.R |

## GEOLOGY

The Shawano Development Corporation claims, considered in this application, are in Poison Basin, a structural and topographic basin, and are underlain by the Browns Park formation of Miocene (?) age. The Browns Park formation disconformably overlies the Wasatch and Green River formations of Eocene age. The Browns Park formation may have been as much as 1,000 to 2,000 feet thick but because of erosion only strata of the lower 400 feet remain. The formation has been exposed by several trenches and open pit mining operations. The lithology

in the areas studied consists mainly of crossbedded, gray to buff, fine to coarse sandstone. The sandstone is generally friable, but occasionally thin carbonate-cemented sandstone units are present, and these usually are resistant to weathering. Outcrops at the Shawano claims are restricted mainly to a small area in a dry gulch on the Jo No. 21 claim, to several trenches and prospect pits on the Matt group of claims, and to trenches and mine workings on the Poison Basin group of claims. Most of the area is covered by soil and alluvium which are estimated to be as much as 50 feet thick.

## URANIUM DEPOSITS

Significant quantities of uranium have not been found to date within the area proposed for drilling by the applicant. However a few tens of thousands of tons of uranium ore are reported to be present at the Fremont Uranium property which is about 3,000 feet west of the northwest corner of the Shawano group of claims. The Fremont Company was mining and shipping uranium ore at the time the field examination was made. The applicant has stated that 110,000 tons of uranium ore with a content of 0.7 percent $U_3O_8$ exist on the Poison Basin No. 9 and No. 10 claims. This estimate probably is overly optimistic. Adequate records to verify this estimate were not available, although assay results from one hole showed 14 consecutive feet of ore with an average grade of 0.43 percent $U_3O_8$ at a depth of 60 feet. The basal conglomerate of the Browns Park formation is especially favorable because significant quantities of uranium have been

found in the basal conglomerate in the Maybell area, 40 airline miles southwest of the Poison Basin area, and abnormal radioactivity including small quantities of secondary uranium minerals have been found in outcrops of the basal conglomerate in the Poison Basin area.

At both properties the yellow secondary uranium minerals uranophane, autunite, schroeckingerite, and tyuyamunite are present as sand grain coatings and disseminations. Ore bodies are lenticular and in general follow a particular set of crossbeds.

## Ore guides

In the Poison Basin area there are few guides which can be used to find ore. Anomalous radioactivity in outcrops as found by surface and airborne surveying has been most effective in outlining favorable areas. Lithologic and structural features favorable for the occurrence of ore are unknown. However, several generalizations regarding the habits of the known ore bodies may be helpful in appraising the potential of the area under consideration::

a. Most, if not all, of the ore bodies in the Poison Basin area are on topographic highs. This may be due to the presence above some ore bodies of a carbonate-cemented sandstone which is more resistant to weathering and forms topographic highs, or to the fact that soil and alluvium on topographic highs are thin or absent and therefore uranium minerals in the bedrock have been easily detected with radiation equipment. Exploration in the area to date has not determined which of these two possibilities is more likely.

b. The uranium deposits in the Poison Basin area seem to be closely related to a present or perhaps recent ground water table. Known uranium deposits seem to be near the contact between oxidized buff sandstone and unoxidized blue sandstone. The possible occurrence of unoxidized uranium minerals, such as pitchblende or uraninite, in unoxidized blue sandstone should be considered. The depth of oxidation in the area is between 20 and 80 feet. Some ore deposits may be found which are related to the present ground water table and therefore topographic or stratigraphic position may be of little value as a guide to ore.

## SELENIUM

In addition to uranium, the Shawano group of claims is of interest because of selenium. A. L. Trites, U. S. Geological Survey geologist, who has studied selenium in the Rocky Mountain region, states that the area is a potential source of selenium ore. Although selenium is not presently listed as a DMEA strategic metal, the value of some of the uranium ore may be greatly increased because of its selenium content. Several selenium analyses have been made on samples from the Poison Basin No. 10 claim, which were collected by Mr. Trites during October 1955. The results are tabulated below.

| Sample description | Selenium (percent) | Uranium (percent) |
|---|---|---|
| Drill hole near open cut, cuttings from 38-45 feet in depth | 0.2 | 0.2 |
| Near floor of open cut, grab sample | 0.3-0.4 | 0.25 |
| Channel sample 1 foot in length near adit | 0.2 | 0.35 |
| Similar material to above sample | 0.007 | 0.6 |
| Limonitic lens in open cut | 0.03 | 0.08 |

The following samples were collected by the examining team: (fig. 3)

| Sample No. | Equivalent uranium | Uranium (percent) | Selenium (percent) | Remarks |
|---|---|---|---|---|
| CRG 12 | 0.47 | 0.390 | 0.075 | 28" channel cut at face of tunnel. |
| CRG 13 | 0.02 | 0.040 | 0.025 | 44" channel cut at face of tunnel. |
| CRG 14 | 0.24 | 0.135 | 0.029 | 48" channel cut at face of pit. |
| CRG 15 | 0.02 | 0.038 | 0.026 | Grab sample from tranch on Matt No. 4. |
| CRG 16 | 0.28 | 0.143 | 0.023 | Grab sample from trench on Matt No. 7. |

In general, the highest selenium contents were found in samples containing highest amounts of uranium. These selected analyses have been included in this report not to show the average grade of selenium-bearing material but to show that selenium occurs and should be considered in any program of exploration and mining.

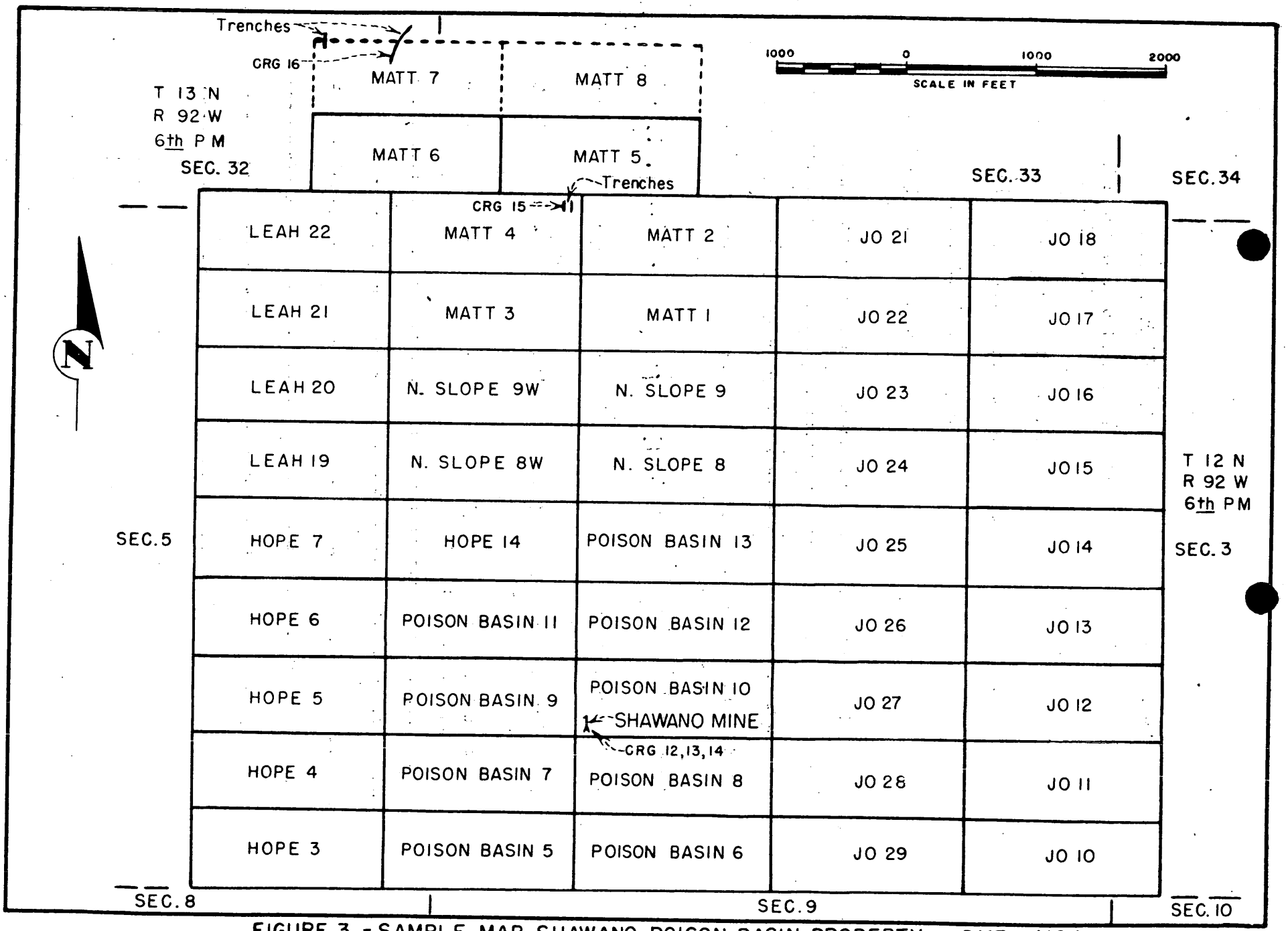


FIGURE 3 - SAMPLE MAP, SHAWANO POISON BASIN PROPERTY. DMEA 4194

## PRESENT STATUS

The company suspended operations early in November 1955 because of winter weather, and operations had not resumed when the property was examined on May 1, 1956.

There are no facilities on the property to conduct a mining operation. The only piece of company owned equipment at the mine is an Allis-Chalmers HD 9, diesel tractor-shovel loader equipped with rooter. The loader has a bucket capacity of about one-half cubic yard.

## PAST MINING OPERATIONS

The only active mining was performed between late spring and early November 1955. During this period 478.55 dry tons of uranium ore were produced, proceeds from which amounted to $13,430.59. The St. Michael's College Foundation of Santa Fe, New Mexico, was the operator. The operation was conducted as an open pit where the stripped pay stratum was broken and loaded into trucks by a mechanical loader, thence trucked to the United Carbide Nuclear Company's processing plant at Rifle, Colorado. Stripping was accomplished by bulldozer.

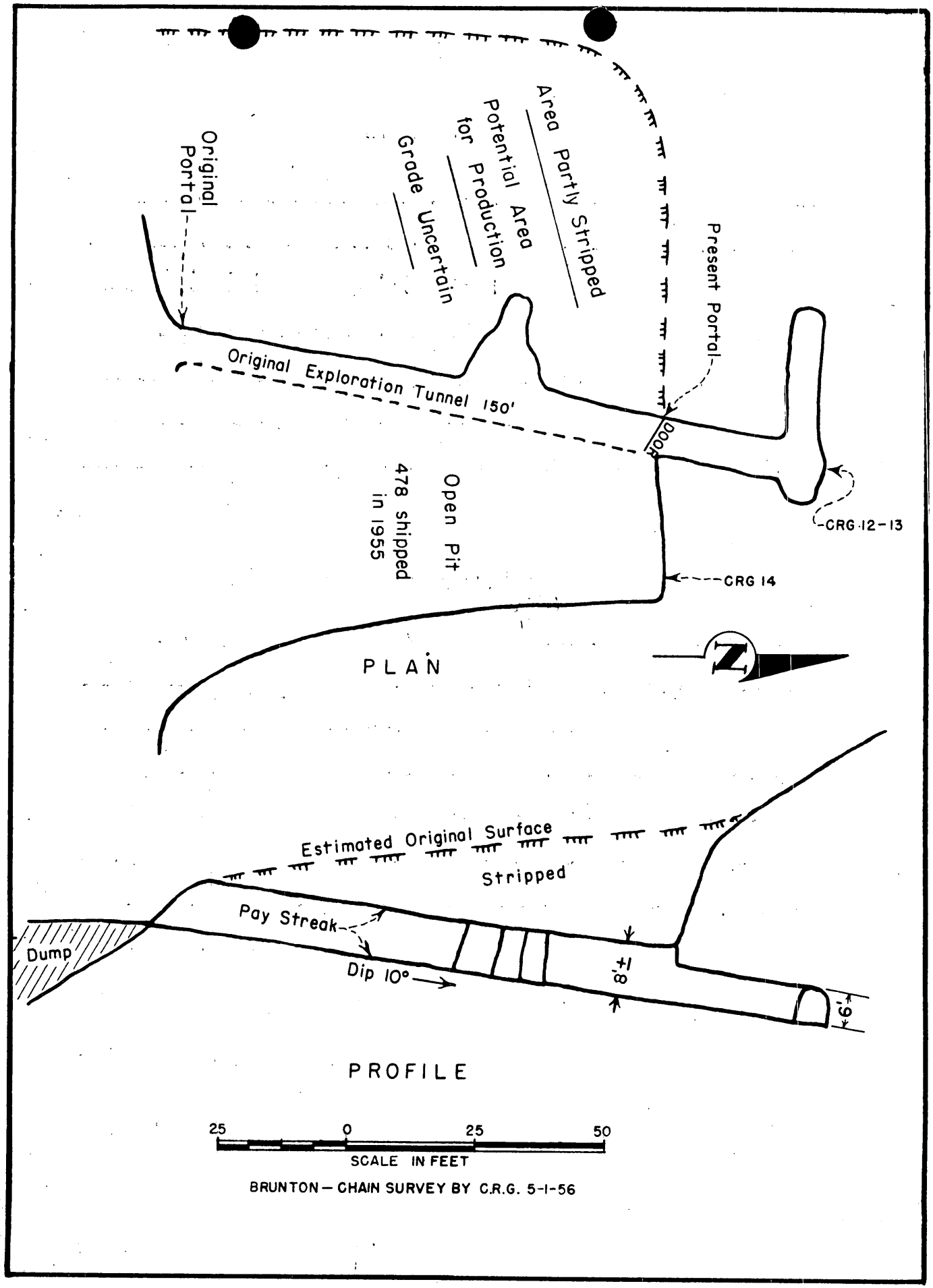


FIGURE 4 — MINE WORKINGS ON POISON BASIN CLAIM No. 10

## EXPLORATION AND DEVELOPMENT

Exploration in this area commenced in 1954 by Sapphire Petroleum, Ltd., a Canadian company. This company drilled an undisclosed number of holes in the vicinity of the present mine; these holes are reported to have bottomed near 40 feet although a few were a little deeper. Samples of radioactive material encountered in these drill holes assayed as high as 0.25 percent $U_3O_8$. Shortly after Shawano Development Corporation acquired the property, they drilled more than 200 holes on Poison Basin claims 7, 8, 9, 10, 11, and 12, several of which were reported to have been drilled nearly 300 feet into the Wasatch formation. No significant accumulations of uranium-bearing material were found in the deeper portions of these holes and it appeared that the uranium-bearing zone was less than 105 feet deep. The company reported that drilling disclosed an ore body on Poison Basin claims 9 and 10 containing 110,000 tons of uranium ore with an average content of 0.70 percent $U_3O_8$. The Atomic Energy Commission auger-drilled 36 shallow holes on the Poison Basin claims which resulted in the discovery of 6,000 tons of indicated and inferred ore.

The company excavated two trenches with a ditching machine in the northeast corner of Matt claim 4. The two trenches, shown on figure 3, are each nearly 100 feet long and about 3 to 4 feet deep, and are parallel to each other and 25 feet apart. A grab sample of radioactive material was collected from the west trench where a relatively high Geiger counter reading of 0.80 MR/hr was observed.

The company also excavated a pit in the upper central portion of Matt claim 4 and a reading of 0.05 MR/hr was observed. Readings of 0.03 MR/hr were observed on Matt claim 3 and North Slope claim 9W. Another small pit was excavated near the middle of Jo claim 29 where a reading of 0.50 MR/hr was observed.

The Shawano Poison Basin mine started as an exploration tunnel on a uranium-bearing stratum and was driven about 150 feet into a dune-like hill. The material encountered averages about 0.10 percent $U_3O_8$ throughout its length and a short crosscut at the face is in an ore zone 6 feet thick (fig. 4). This tunnel was never used as an integral part of the mining operations because as the explored ore zone proved sufficiently large, the mine was converted into an opencut mine. The overburden, ranging in depth from 2 feet to nearly 25 feet on the uphill side, was bulldozed to the downhill slope stripping an area 80 feet wide and 125 feet long. A rooter pulled by bulldozer ripped the soft sandstone ore stratum which was then mechanically loaded into trucks and hauled to the processing plant. Approximately 40 percent of the ore mined was covered by overburden which has to be removed by stripping. The ore body which is not delineated completely contains an undetermined tonnage of uranium-bearing material and is of unknown quality.

Ore must contain at least 0.20 percent $U_3O_8$ to be accepted by the processing company. However, Trace Elements Corporation has obtained approval from the Atomic Energy Commission to construct a processing mill at Maybell, Colorado about 75 miles by road to the south. This company plans to process ore containing less than 0.20 percent $U_3O_8$.

## ESTIMATED ORE RESERVES

It is impractical to attempt an accurate estimate of the ore reserves in this area with the incomplete and uncorrelated data available.

Figure 4 shows an area stripped of overburden which the applicant considers is an ore body of commercial quality. This area is 65 feet wide and 80 feet long and, according to the exposure on the east side, has a radioactive zone 7 feet thick. Using 13 cubic feet per ton, this body would contain approximately 2,800 tons. The very meager and uncorrelated drill hole data of this immediate area would indicate a grade of approximately 0.10 percent $U_3O_8$ for a depth of 3 feet. Inferred reserves of unknown quality adjacent to this body would probably contain an additional 6,000 tons. Exclusive of the ore body the company claims to have delineated and blocked out, the property is virtually unexplored.

## PROJECT PROPOSAL AND ESTIMATED COSTS

The applicant proposed to explore the property by rotary drilling 301,350 feet in 4-1/2-inch holes at an estimated cost of $481,920.00. The program would require two years for completion. The original proposal was for a two-stage project. The first stage would drill the property on grid pattern, the holes being spaced 500 feet apart along east-west lines and 600 feet apart along north-south lines, as shown on figure 5. Poison Basin claims 7, 8, 9, 10, 11, and 12 would be excluded as they have been drilled previously. The first stage would call for three holes per claim for 41 claims (fig. 5), or a total of

123 drill holes, each 105 feet deep. Stage II would be to drill offset holes 100 feet apart around holes drilled in the first stage that showed significant amounts of radioactivity. Stage II, if merited, would call for 2,747 holes, each 105 feet deep. The applicant has not stated the cutoff point of $U_3O_8$ assays which would be used to determine which holes are to be drilled in Stage II.

The applicant's cost analysis is as follows:

| | | | |
|---|---|---|---|
| I. | Estimate of drilling: 70 holes, 105 ft. deep, on each of 41 contiguous claims, to a total of 301,350 ft. at $1.33/ft. | | $401,800.00 |
| | Bulldozing drill sets, 2,000 hrs. at $7.50/hr. | | 15,000.00 |
| II. | Supervision: | | |
| | Supt., 2 yrs. at $500/mo. | $12,000 | |
| | Accounting, $40/wk., 104 wks. | 4,160 | |
| | Eng'r'g.,mapping, reports, (preparation) | 9,600 | |
| | Consultants(e.g.Beath et al) | 2,000 | 27,760.00 |
| III. | Drafting, materials, reproduction of narrative reports, assays, production records, et al, over 24 months of operation | | 2,400.00 |
| IV. | Depreciation on shovel-loader-ripper-bulldozer (cost $12,000 at less than 25%/year) | | 5,000.00 |
| V. | Assaying (by Root & Simpson) (at least one assay per each of the 2,870 proposed holes at $8 each) | | 22,960.00 |
| | (a) Workman's compensation and employer's liability, payroll tax deductions, union dues (if any), and all other "deductions" will be absorbed by the sub-contractor. | | none |
| VI. | "Contingencies" (Rental or purchase of new technological equipment et al): Current laboratory research, on an experimental basis here in Golden, indicates that there is a simple, portable, field device that will establish a cut-off signal of "ore", or "not ore", -- to "ship", to "stock-pile", or to abandon as waste material. | | 7,000.00 |
| | Grand total | | $481,920.00 |

## Modified proposed program

The principal justification for exploring new areas in Poison Basin is that the applicant company and the Fremont Uranium Company have produced ore from deposits in the area. However, only a much reduced project from that proposed by the applicant is warranted.

A program recommended by the examining team provides for rotary non-core drilling 88 holes having an aggregate length of 9,830 feet. This program of drilling would have the following purposes:

1. Determine the stratigraphic position of the uranium deposits in the Browns Park formation on the Poison Basin claims and the possible presence of additional deposits or mineralized sandstone in the lower part of the formation, especially the basal conglomerate.
2. Explore areas exhibiting anomalous radioactivity on the surface.
3. Explore areas which are topographically and perhaps stratigraphically at about the same elevation as known deposits which are within or adjacent to the area considered in this report.
4. Extend or delimit the known ore bodies on Poison Basin claims 7 through 12.
5. Explore the contact between oxidized and unoxidized sandstone for evidence of uranium mineralization in areas of deep overburden.

The location of the proposed drill holes is shown on figure 5. Because of different purposes of drilling, the program has been divided into several areas and two stages each of which is described and justified below:

Stage I

Area 1:

Drilling in area 1 consists of two holes to be drilled through the basal conglomerate of the Browns Park formation. These drill holes will explore for the presence of other uranium-bearing strata in the lower part of the formation. The depth of these holes would be about 350 to 400 feet. In addition to determining the stratigraphic position of the ore deposits on the Poison Basin claims, the drill holes would be very helpful in determining the structure near the center of the Poison Basin and would provide valuable information concerning the lithology of the Browns Park formation.

Area 2:

Anomalous radioactivity (0.5 MR/hr, background 0.01 MR/hr) was found at a shallow bulldozer cut where there is a slight positive topographic expression caused by carbonate-cemented sandstone. The area is alined with the ore bodies on the Poison Basin No. 9 and No. 10 claims and Fremont Uranium Company ore bodies. To explore this area, five drill holes drilled to a depth of 105 feet are recommended as shown in figure 5. The center hole of this group should be drilled first. If results found in this hole are discouraging, the remaining four holes shall not be drilled.

Area 3:

Anomalous radioactivity was found in this area by airborne reconnaissance, and slight abnormal radioactivity is present over a large area on the ground. Two trenches on the Matt 4 claim gave readings of 0.5 and 0.8 MR/hr, background 0.01 MR/hr. Significant amounts of ore-grade material were not found during the trenching, but a large amount of weakly mineralized sandstone was present.

Because of the presence of uranium-bearing sandstone and the possibility that an ore body exists in the vicinity of the surface anomalies, and because the Matt claims are at about the same elevation as the Fremont Uranium Company's ore bodies and the ore bodies on the Poison Basin No. 9 and No. 10 claims, 21 holes drilled to a 105-foot depth are recommended. Location of the holes is shown in figure 5.

Area 4:

Area 4 is within the six Poison Basin claims which were not proposed for drilling by the applicant. This area is believed to be especially favorable because of the presence of known ore bodies on the Poison Basin No. 9 and No. 10 claims as indicated by AEC drilling and subsequent mining operations. One of the best guides to ore would be to follow trends of mineralization where the presence of uranium-bearing sandstone is presently known. Drilling on the Poison Basin claims has not delimited the extent of the mineralized sandstone, and

exploration is warranted to determine the limits and trends of the uranium-bearing sandstone and the possible presence of additional ore bodies along those trends. Some of the drilling would be on ground which is topographically and perhaps stratigraphically below the position of the known ore bodies on Poison Basin No. 9 and No. 10 claims.

The location of nine proposed drill holes on the Poison Basin No. 9 and No. 11 claims is shown on figure 5. The depth of these holes should be about 105 feet.

Area 5:

Area 5 includes the claims situated between the ore bodies on the Poison Basin group of claims and the ore bodies being developed by Fremont Uranium Company. This area is considered favorable because it is between two areas containing ore deposits and is underlain by the Browns Park formation. Soil and alluvium cover most of this area and may be as much as 50 feet thick. Seventeen 105-foot drill holes (location shown on figure 5) are recommended to explore this area.

Stage II

Up to 3,570 feet of drilling is recommended to offset from any mineralized holes found or to further explore trends of mineralization or uranium ore found during stage I. Stage II, in part or all, should be recommended only after the completion of stage I and after the results of drilling of stage I have been apprised by the DMEA field examiners.

In general, the recommended exploratory program may be summarized as follows: (refer to figure 5)

Stage I

Area 1: Drill 2 holes, each 400 feet deep for a total of 800 feet of drilling.

Area 2: Drill 5 holes on 100-foot centers, each 105 feet deep for a total of 525 feet of drilling.

Area 3: Drill 21 holes on 200-foot centers, each 105 feet deep, for a total of 2,205 feet of drilling.

Area 4: Drill 9 holes on 200-foot centers, each 105 feet deep for a total of 945 feet of drilling.

Area 5: Drill 17 holes on 500- by 600-foot centers, each 105 feet deep for a total of 1,785 feet of drilling.

Stage II: Drill up to 34 holes or a maximum of 3,570 feet of drilling as approved by DMEA inspectors.

A dozer will be required to construct roads and level drill sites. The time required to complete this program is estimated to be eight weeks.

## PROJECT COSTS

The modified and reduced project costs are estimated as follows:

## PROJECT COSTS

| Item | Dry drilling | Wet drilling | Total |
|---|---|---|---|
| I. Independent contracts: | $ | $ | $ |
| (a) Dozing - Preparation of drill sites, etc., up to 100 hours at $10.00 per hour with operator Pay actual cost according to contractor's invoice | | | 1,000.00 |
| (b) Drilling authorized up to: | | | |
| 140 feet at $1.00 per foot | 140.00 | | |
| 660 feet at $2.25 per foot | | 1,485.00 | |
| 6,020 feet at $1.00 per foot | 6,020.00 | | |
| 3,010 feet at $1.75 per foot | | 5,267.50 | |
| Payment to be made for footage drilled and whether dry or wet (wet conditions requiring pumping of water for return of cuttings). | | | 12,912.50 |
| II. Supervision | | | |
| 1 - Supervisor engineer at $500 per month for 2 months | 666.67 | 333.33 | |
| 2 - Samplers at $75.00 per week for 6 weeks | 300.00 | 600.00 | |
| 1 - Accountant at $100.00 for the job | 66.67 | 33.33 | |
| Payroll taxes and insurance - 5% of $2,000.00 | 70.00 | 30.00 | |
| | | | 2,100.00 |
| III. Supplies | | | |
| Sample containers, etc. - $150.00 | 100.00 | 50.00 | |
| Miscellaneous supplies - 200.00 | 133.33 | 66.67 | |
| | | | 350.00 |
| IV. Probing holes - 9,832 feet at 10¢ per foot | 616.00 | 367.00 | |
| | | | 983.00 |
| Total cost of drilling | $8,112.67 | $8,232.83 | $16,345.50 |
| Total cost per foot of drilling | 1.32 | 2.24 | |
| V. Assaying - up to 500 samples at $5.00 per sample Payment to be made according to assayer's invoice | | | 2,500.00 |

## COST OF CONTRACT

| | | | |
|---|---|---|---|
| I. | Preparation - dozing | $ 1,000.00 | |
| II. | Drilling: | | |
| | 6,160 feet at $1.32 per foot $8,131.20 | | |
| | 3,670 feet at $2.24 per foot 8,220.80 | 16,352.00 | |
| III. | Assaying | | |
| | 500 samples at $5.00 each | 2,500.00 | |
| | Total cost of contract | | $19,852.00 |

The estimated cost of each stage is as follows:

| | | |
|---|---|---|
| Stage I | | |
| (a) Drilling | | |
| 54 holes for a maximum of 6,260 ft: | | |
| About 3,780 feet at $1.32 | 4,989.60 | |
| About 2,480 feet at $2.24 | 5,555.20 | |
| (b) Preparation of site | 700.00 | |
| (c) Assaying about 340 samples | 1,700.00 | |
| | | $12,944.80 |
| Stage II: | | |
| (a) Drilling - up to | | |
| 34 holes for a maximum of 3,570 ft: | | |
| About 2,380 feet at $1.32 | 3,141.60 | |
| About 1,190 feet at $2.24 | 2,665.60 | |
| (b) Preparation of site - a maximum of 30 holes at $10.00 each | 300.00 | |
| (c) Assaying about 160 samples | 800.00 | |
| | | 6,907.20 |
| Total | | $19,852.00 |

CONTRACT PROVISIONS

The applicant will probe radiometrically each drill hole from top to bottom immediately after a hole has been completed. A radiometric log is to be submitted to the DMEA inspectors upon completion of drilling each hole.

The applicant will provide adequate facilities to collect dry and wet samples of drill cuttings from the holes. Two samplers are provided to collect dry samples and to collect and dry wet samples. Samples are to be collected for every 2 feet of depth. The Government requires that a sample be retained for DMEA purposes with the following information attached: hole number, location, elevation of collar, interval of each sample cut, and condition of the ground, whether wet or dry. Note should be made in the drill logs of the elevation of the water table encountered in each hole.

Dry samples can be piled on the ground in 2-foot intervals. A representative portion of the sample of at least 8 ounces will be collected in a suitable container and saved for DMEA representatives. Samples with relatively high radioactivity will be divided and one split saved for assaying.

Wet cuttings will be collected in sludge tanks, and after the cuttings have settled, the water decanted. Cuttings will be dried in the sun (or other suitable means), and a representative portion of at least 8 ounces saved in a suitable container for DMEA representatives. Samples with relatively high radioactivity will be divided and one split saved for assaying.

Samples are to be assayed for uranium and vanadium, and all assays made for or by the applicant must have a copy submitted to the DMEA along with an invoice of their cost.

## CONCLUSIONS AND RECOMMENDATIONS

The field evidence does not justify drilling the applicant's entire property. However, a reduced exploratory program which will explore the known surface anomalies and mineralized areas has merit.

With the exception of the AEC drilling, records and data of previous exploration work offer little or no reliable information upon which to evaluate the property. However, the applicant company and Fremont Uranium Corporation have mined and shipped uranium ore derived from ore bodies in Browns Park formation. The ore horizon is shallow and can be stripped to afford open-pit mining.

The possibility of finding commercial uranium ore bodies by dry and wet rotary drilling is favorable, and it is recommended that a reduced and modified project be approved for DMEA participation. The recommended project is for a maximum of 9,830 feet of dry and wet rotary drilling to be accomplished in two stages. The cost of the project is estimated at $19,852.00, and the Government participation would be 75 percent or $14,889.00.

"A"

# AFFIDAVIT

STATE OF COLORADO )
) ss.
CITY AND COUNTY OF DENVER )

RECEIVED
JUN 15 1956

IRVING PASTERNAK, being first duly sworn upon oath states:

1. That he is and was President of Baggs Uranium Corporation on July 12, 1955; that Baggs Uranium Corporation, a Delaware Corporation, sold and conveyed to Shawano Development Corporation, a Florida corporation, by assignment dated July 12, 1955, executed, sealed, and delivered, all of the following lode claims and mining claims affecting lands in Carbon County, State of Wyoming, known under the following names and designations, to-wit:

a) Poison Basin Claims (Benson) 17 in number,
b) The Margaret Claims, 28 in number,
c) The Leah Claims, 15 in number,
d) The Jo Claims, 22 in number,
e) The Hope Claims (Pasternak), 6 in number,
f) The Matt Claims (Pasternak), 4 in number,
g) The Horse Claims, 6 in number,
h) The Hope Claims (Benson), 8 in number,
i) The Matt Claims (Weber-Benson), 4 in number,
j) The Ruby Claims, 9 in number,
k) Dixon-Stanton #2 Claim, 1 claim,
l) Don Claims, 6 in number,
m) Peter Claims, 16 in number,
n) Posty Claims, 32 in number,
o) Happy Group of Claims, 24 in number,
p) Barbara Claims, 36 in number,
q) Red Creek Claims, 4 in number,

subject to royalties of Five Per Cent (5%) covering all of said claims, with the exception of Poison Wash Claim #5 on which the royalty is Ten Per Cent (10%), all as more particularly described on Exhibit "A" hereto attached consisting of nine (9) pages;

3. That Shawano Development Corporation became the owner of each and all of said claims by the aforesaid assignment dated July 12, 1955; that said claims were acquired by Baggs Uranium Corporation from Irving Pasternak who acquired the same from the original locators; that assignments affecting the same have been duly recorded in Carbon County, Wyoming; that to the best of Affiant's knowledge Shawano Development Corporation is now in possession of all of said claims and conducting operations on a portion thereof and that the original assignment is in the possession of the Shawano Development Corporation. Affiant knows of no adverse claims against any of said claims.

Irving Pasternak
IRVING PASTERNAK

Subscribed and sworn to before me this 27 day of January, 1958.

Mary Allred
Notary Public

APPENDIX "A"

AFFIDAVIT

RECEIVED
JUN 1 5 1956

STATE OF COLORADO )
) ss.
CITY AND COUNTY OF DENVER )

IRVING PASTERNAK, being first duly sworn upon oath states:

1. That he is and was President of Baggs Uranium Corporation on July 12, 1955; that Baggs Uranium Corporation, a Delaware Corporation, sold and conveyed to Shawano Development Corporation, a Florida corporation, by assignment dated July 12, 1955, executed, sealed, and delivered, all of the following lode claims and mining claims affecting lands in Carbon County, State of Wyoming, known under the following names and designations, to-wit:

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h) The Hope Claims (Benson), 8 in number,
i) The Matt Claims (Weber-Benson), 4 in number,
j) The Ruby Claims, 9 in number,
k) Dixon-Stanton #2 Claim, 1 claim,
l) Don Claims, 6 in number,
m) Peter Claims, 16 in number,
n) Posty Claims, 32 in number,
o) Happy Group of Claims, 24 in number,
p) Barbard Claims, 36 in number,
q) Red Creek Claims, 4 in number,

subject to royalties of Five Per Cent (5%) covering all of said claims, with the exception of Poison Wash Claim #5 on which the royalty is Ten Per Cent (10%), all as more particularly described on Exhibit "A" hereto attached consisting of nine (9) pages;

3. That Shawano Development Corporation became the owner of each and all of said claims by the aforesaid assignment dated July 12, 1955; that said claims were acquired by Baggs Uranium Corporation from Irving Pasternak who acquired the same from the original locators; that assignments affecting the same have been duly recorded in Carbon County, Wyoming; that to the best of Affiant's knowledge Shawano Development Corporation is now in possession of all of said

claims and conducting operations on a portion thereof and that the original assignment is in the possession of the Shawano Development Corporation. Affiant knows of no adverse claims against any of said claims.

/s/ Irving Pasternak
IRVING PASTERNAK

Subscribed and sworn to before me this 27 day of

January, 1956

/s/ Mary ???
Notary Public

AFFIDAVIT

STATE OF NEW YORK )
) ss.
CITY AND COUNTY OF NEW YORK )

A. L. GUTERMA, being first duly sworn upon oath states:

1. That he is President of Shawano Development Corporation, a Florida corporation with offices at 430 Park Avenue, 19th Floor, New York City, New York;

2. That Shawano Development Corporation acquired from Baggs Uranium Corporation, a Delaware corporation, then the owner thereof, by assignment dated July 12, 1955, all right, title and interest in those certain lode claims and mining claims covering lands in Carbon County, State of Wyoming, generally known under the following names, to-wit:

a) Poison Basin Claims (Benson) 17 in number,
b) The Margaret Claims, 28 in number,
c) The Lesh Claims, 15 in number,
d) The Jo Claims, 22 in number,
e) The Hope Claims (Pasternak), 6 in number,
f) The Matt Claims (Pasternak), 4 in number,
g) The Horse Claims, 6 in number,
h) The Hope Claims (Benson) 8 in number,
i) The Matt Claims (Weber-Benson), 4 in number,
j) The Ruby Claims, 9 in number,
k) Dixon-Stanton #2 Claim, 1 claim,
l) Ben Claims, 6 in number,
m) Peter Claims, 16 in number,
n) Pesty Claims, 32 in number,
o) Happy Group of Claims, 34 in number,
p) Barbara Claims, 36 in number,
q) Red Creek Claims, 4 in number,

subject to royalties of Five Per Cent (5%) covering all of said claims, with the exception of Poison Nest Claim #3 on which the royalty is Ten Per Cent (10%), all as more particularly described on Exhibit "A" hereto attached consisting of nine (9) pages;

3. That Shawano Development Corporation is the owner of each and all of said claims; that said claims were acquired by Baggs Uranium Corporation from Irving Pasternak who acquired the same from the original locators; that assignments affecting the same have been duly recorded in Carbon County, Wyoming; that Shawano Development Corporation is now in possession of all of said claims and conducting operations on a portion thereof; that the original assignment is in the possession of the Shawano Development Corporation; that the Affiant knows of no adverse claims against any of said claims.

A. L. Guterma

Subscribed and sworn to before me this the 14th day of February, 1956.

Notary Public

My commission expires:

RECEIVED
JUN 15 1956

C
O
P
Y

AFFIDAVIT

STATE OF NEW YORK )
) ss.
CITY AND COUNTY OF NEW YORK )

RECEIVED
JUN 15 1956

A. L. , being first duly sworn upon oath states:

1. That he is President of Shawano Development Corporation, a Florida corporation with offices at 430 Park Avenue, 19th Floor, New York City, New York;

2. That Shawano Development Corporation acquired from Baggs Uranium Corporation, a Delaware corporation, then the owner thereof, by assignment dated July 12, 1955, all right, title and interest in those certain lode claims and mining claims covering lands in Carbon County, State of Wyoming, generally known under the following names, to-wit:

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f) The Matt Claims (Pasternak), 4 in number,
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h) The Hope Claims (Benson), 8 in number,
i) The Matt Claims (Weber-Benson), 4 in number,
j) The Ruby Claims, 9 in number,
k) Dixon-Stanton No. 2 Claim, 1 claim,
l) Don Claims, 6 in number,
m) Peter Claims, 16 in number,
n) Posty Claims, 32 in number,
o) Happy Group of Claims, 24 in number,
p) Barbara Claims, 36 in number,
q) Red Creek Claims, 4 in number,

subject to royalties of Five Per Cent (5%) covering all of said claims, with the exception of Poison Wash Claim No. 5 on which the royalty is Ten Per Cent (10%), all as more particularly described on Exhibit "A" hereto attached consisting of nine (9) pages;

3. That Shawano Development Corporation is the owner of each all of said claims; that said claims were

acquired by Baggs Uranium Corporation from Irving Pasternak who acquired the same from the original locators; that assignments affecting the same have been duly recorded in Carbon County, Wyoming; that Shawano Development Corporation is now in possession of all of said claims and conducting operations on a portion thereof; that the original assignment is in the possession of the Shawano Development Corporation; that the Affiant knows of no adverse claims against any of said claims.

/s/ A. L.
A. L.

Subscribed and sworn to before me this the 14th

day of February, 1956.

/s/ Nicholas V. Lombardo
Notary Public

My commission expires:

_____

APPENDIX "B"

SHAWANO DEVELOPMENT CORPORATION
Shawano Poison Basin mine
Production Data
(Taken from settlement sheets)

| Period covered 1955 produced | Date of settlement | Dry tons | Percent $U_3O_8$ | Pounds $U_3O_8$ | Percent $V_2O_5$ | Pounds $V_2O_5$ | Value $U_3O_8$ | Value $V_2O_5$ | Development allowance | Premium excess 4# per ton | Haulage allowance | Gross value of shipment | Value per ton |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aug. 1-15 | 8/19/55 | 37.69 | 0.33 | 250.71 | 0.09 | 71.03 | 877.49 | 22.02 | 125.36 | 74.96 | 241.68 | 1,341.51 | 35.59 |
| Aug. 16-31 * | 9/7/55 | 203.45 | 0.32 | 1,301.12 | 0.08 | 318.88 | 4,553.92 | 98.85 | 650.56 | 365.49 | 1,333.08 | 6,432.24 | 31.62 |
| Sept. 1-28 | 10/6/55 | 224.51 | 0.21 | 941.47 | 0.05 | 229.34 | 3,295.15 | 71.10 | 470.74 | 32.57 | 1,469.52 | 5,339.08 | 23.78 |
| to Nov. 5 | 11/5/55 | 12.90 | 0.22 | 56.74 | -- | -- | 198.59 | -- | 28.37 | 3.86 | 86.94 | 317.76 | 24.63 |
| | | 478.55 | 0.266 | 2,550.04 | 0.065 | 619.25 | 8,925.15 | 191.97 | 1,275.03 | 476.88 | 3,131.22 | 13,430.59 | 28.07 |

* This shipment contained 10.5 percent $CaCO_3$ - Total penalty $569.66

1. 5 Lot shipment 0.19 - 0.52 percent $U_3O_8$
2. 18 Lot " 0.13 - 0.62 " "
3. 18 Lot " 0.10 - 0.38 " "
4 1 Lot " -- 0.22 " "

UNION CARBIDE NUCLEAR COMPANY
Division of Union Carbide and Carbon Corporation
Rifle, Colorado

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

RECEIVED
MAR 22 1956

March 20, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (2) (With brochure)
E. N. Harshman

From: Field Team, Region III

Subject: Docket DMEA 4194 (Uranium), Shawano Development Corporation, Shawano Poison Basin Mine, Carbon County, Wyoming

Enclosed is the subject application in the amount of $481,920.00. A field examination and suitable report are requested.

Also attached are a copy of a letter from the Chairman of the Operating Committee dated March 15, 1956 and memoranda of review of the application by W. F. Williams and John E. Crawford.

DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures

HMC:ab

cc: Chair. Op. Comm. (2)
Docket 4194
Chron.

700

FILE COPY
Surname:
Ching
Ellis
Kilpatrick
Sechler
Selfridge
Gemmen

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

MAR 15 1956

Shawano Development Corporation
430 Park Avenue
New York, New York

Re: Docket No. DMEA-4194 (Uranium)
Shawano Poison Basin Mine
Carbon County, Wyoming

Gentlemen:

The application for assistance in exploring your property, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to the Executive Officer of Region III at the following address:

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

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

Sincerely yours,

G. C. Mitzendorf

Administrator

MChing/izm 3-12-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
DMEA Field Team, Region III (2)

P.C.S.

700

FILE COPY

Surname:

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

MAR 15 1956

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

Re: Docket No. DMEA-4194 (Uranium)
Shawano Development Corporation
Shawano Poison Basin Mine
Carbon County, Wyoming

Dear Mr. Traver:

The subject application is being referred to you for investigation, a field examination, if warranted, and recommendations. A copy of the application was retained by your office.

Enclosed are two copies each of memoranda, dated March 6 and 7, 1956, from W. P. Williams, USGS, and John E. Crawford, USBM, respectively.

In the event a contract is recommended by the Field Team, a Subordination Agreement would be required of LeRoy Benson, Matt Weber, Carle Jebbens and the party or parties holding royalty claims against the Poison Basin Nos. 5 and 6 and Jo Nos. 19 and 20 claims.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures

APPROVED:

/s/ Robert W. Geehan
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

MChing/izm 3-22-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

3/8/56 [illegible]

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

RECEIVED
MAR - 7 1956

March 7, 1956

Memorandum

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

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

Subject: Application for assistance, DMEA Docket 4194, Shawano Development Corporation, Carbon County, Wyoming

I have reviewed the attached application, Shawano Development Corporation, DMEA Docket 4194, dated January 10 and received in this office February 28. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The Shawano Development Corporation is desirous of exploring a series of contiguous claims in Carbon County, Poison Basin area, Wyoming, for uranium and selenium. Adjoining properties of the Shawano company have been the source of significant uranium production. The applicant has drilled more than 200 holes in the immediate area, but the drilling has all been within the boundaries of the six claims excluded in his request for assistance. It appears that no actual prospecting or exploration work has been conducted by the company on the subject claims. However, the fact that uranium mineralization must occur on the said claims is fairly obvious.

The exploration program proposed by the applicant is an extensive one. The project would include 301,350 feet of drilling, to consist of 70 holes, on a controlled and closely supervised pattern. Drilling costs were estimated at $1.33 per foot and bulldozing costs at $7.50 per hour. Such costs do not appear out of order.

It should be noted that the applicant will explore for selenium as well as uranium. It is stated that the DMEA will automatically receive its specified royalty from both uranium and selenium. Because selenium has been in exceptionally short supply and because it is now being stockpiled by the Government, the potentialities of the area as a source of selenium and its significance to Government and industry should not be overlooked.

While we recommend that the application be forwarded to the Field Team for review and possible field examination, we emphasize that, as proposed, the project appears to be too elaborate. Should the Field Team recommend a more modest program, Mr. Hosted suggests that the claims, Poison 7, 8, 9, 10, 11, and 12, be included. The Field Team should consult with D. L. Everhart, Atomic Energy Commission, Denver, Colorado.

John E. Crawford

John E. Crawford

Attachment

3/7/56

IN REPLY REFER TO:

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

RECEIVED
MAR - 7 1956

March 6, 1956

Memorandum

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

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

Subject: Review of application, DMEA 4194 (uranium and selenium), Shawano Development Corporation, Shawano Poison Basin Mine, Carbon County, Wyoming.

The applicant proposes to explore for uranium and selenium on 41 contiguous mining claims by means of 301,350 feet of drilling. The estimated total cost of the project is $481,920.

The Poison Basin or Baggs area, Carbon County, Wyoming, is the second (Gas Hills area is first) most favorable area of seleniferous uranium deposits in Wyoming. The deposits are in the Browns Park formation of Miocene age. In addition to selenium and uranium the deposits contain abnormal amounts of molybdenum and arsenic. Samples of rocks collected from the area by U.S.G.S. personnel in 1955 contained as much as 150 ppm selenium, 130 ppm molybdenum and 120 ppm arsenic.

On the Shawano property an adit was first driven into the ore zone, and later an open pit, approximately 100 feet long, 200 feet wide, and 35 feet deep was dug. About 500 tons of uranium ore have been shipped to the U. S. Vanadium Corporation's mill at Rifle, Colorado, but production could not be sustained because of the difficulty in maintaining ore grade.

Both, unoxidized and oxidized ores are present in the open pit. The selenium is found in the main oxidized ore zone, in the underlying gray pyrite-bearing beds, and in the overlying limonitic sandstone. The highest concentration is believed to be about 1.0 percent selenium in a lens about 1 foot thick in the oxidized ore zone exposed near the adit. Quantitative sample data are not yet available, but it is believed that the distribution of selenium is not uniform.

Preliminary estimates by U.S.G.S. personnel are that the property's uranium reserves consist of a few thousand tons of inferred ore having a grade of 0.10 to 0.15 percent uranium and 50 tons with a grade of 0.1 to 1.0 percent selenium and 5,000 tons with a grade of 0.005 to 0.05 percent selenium. Some believe that 0.1 percent selenium metal would be minimum

commercial ore grade. An article in the Engineering and Mining Journal, December, 1955, page 116, gives some disappointing aspects of exploring for, mining, and treating Wyoming selenium ores.

The applicant proposes to drill the entire area on a rectangular grid pattern with holes on 100 foot centers. While close-spaced holes will be necessary to seek and find the small, pockety, selenium deposits it seems that a staged program with first stage holes widely spaced would be more desirable and would allow for concentration of later stage holes in the favorable areas.

I recommend that the application be referred to the Field Team for field examination and report. I suggest that the Field Team, Region III, consult and discuss the application with Albert F. Trites, U.S.G.S., selenium commodity specialist, Denver.

W P Williams

W. P. Williams

DMEA
Date Rec'd.

MAR 21 1956 March 21, 1956

BUREAU OF MINES
Denver, Colorado

Memorandum

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

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4194 (Uranium), Shawano Development Corporation, Shawano Poison Basin mine, Carbon County, Wyoming

The subject application in the amount of $481,920.00 was received in this office on March 21, 1956.

A field examination will be made and suitable report prepared by an engineer from the Denver office.

JOHN F. SHAW
John F. Shaw

cc: W. M. Traver (2)
E. N. Harshman
J. F. Shaw
Ch. Op. Com (2)

DMEA
Date Rec'd,
MAR 21 1956
BUREAU OF MINES
Denver, Colorado

March 21, 1956

Memorandum

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

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4194 (Uranium), Shawano Development Corporation, Shawano Poison Basin mine, Carbon County, Wyoming

The subject application in the amount of $481,920.00 was received in this office on March 21, 1956.

A field examination will be made and suitable report prepared by an engineer from the Denver office.

John F. Shaw

cc: W. M. Traver (2)
E. N. Marshman
J. F. Shaw
Ch. Op. Com (2)

Subject: DMEA-4194
Re: Shawano Poison Basin Mine

Shawano Development Corp.
430 Park Ave.,
New York, N.Y.

February 28, 1956

Gentlemen:

The receipt of your application dated January 10, 1956 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4194 and referred to the Rare and Miscellaneous Metals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

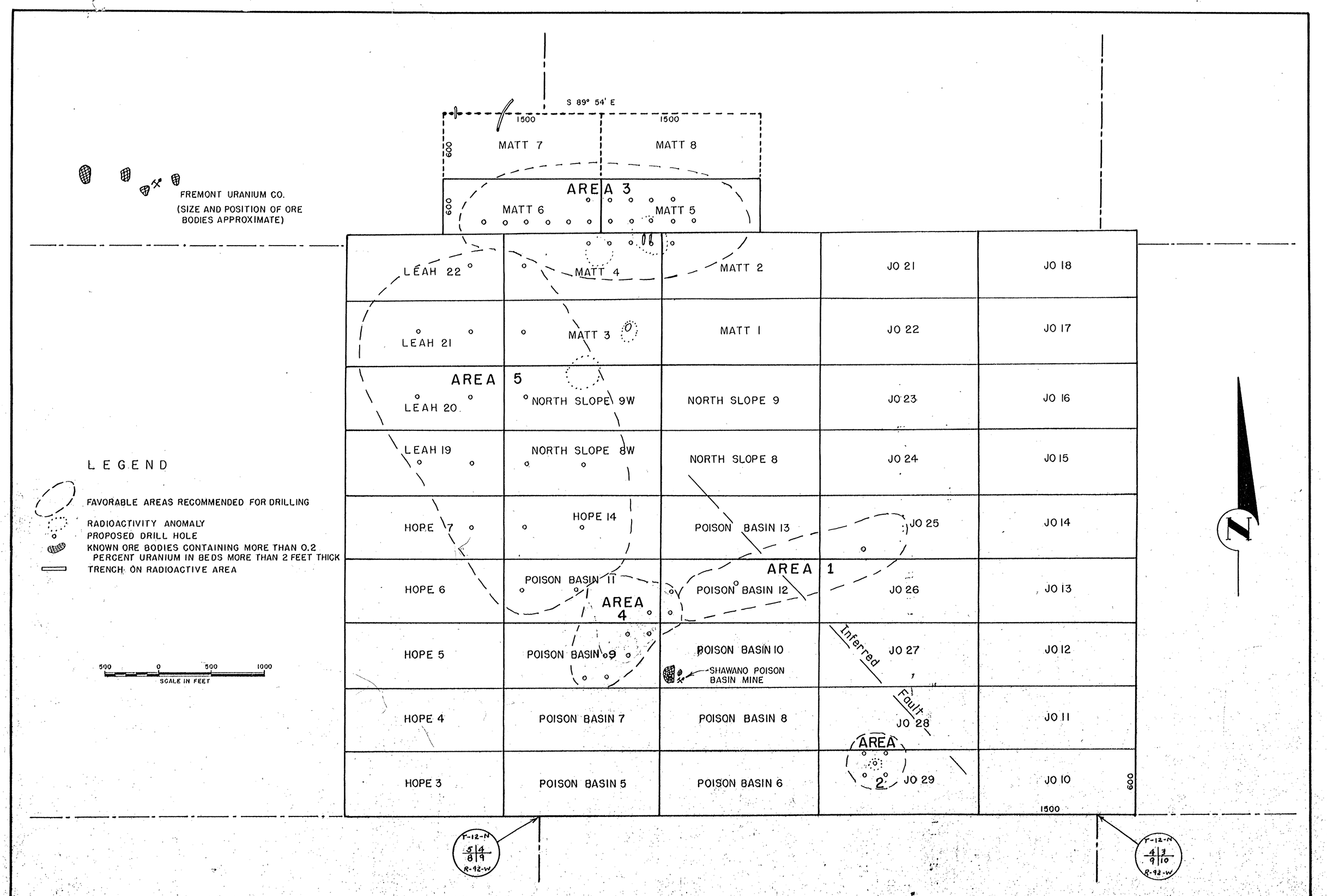
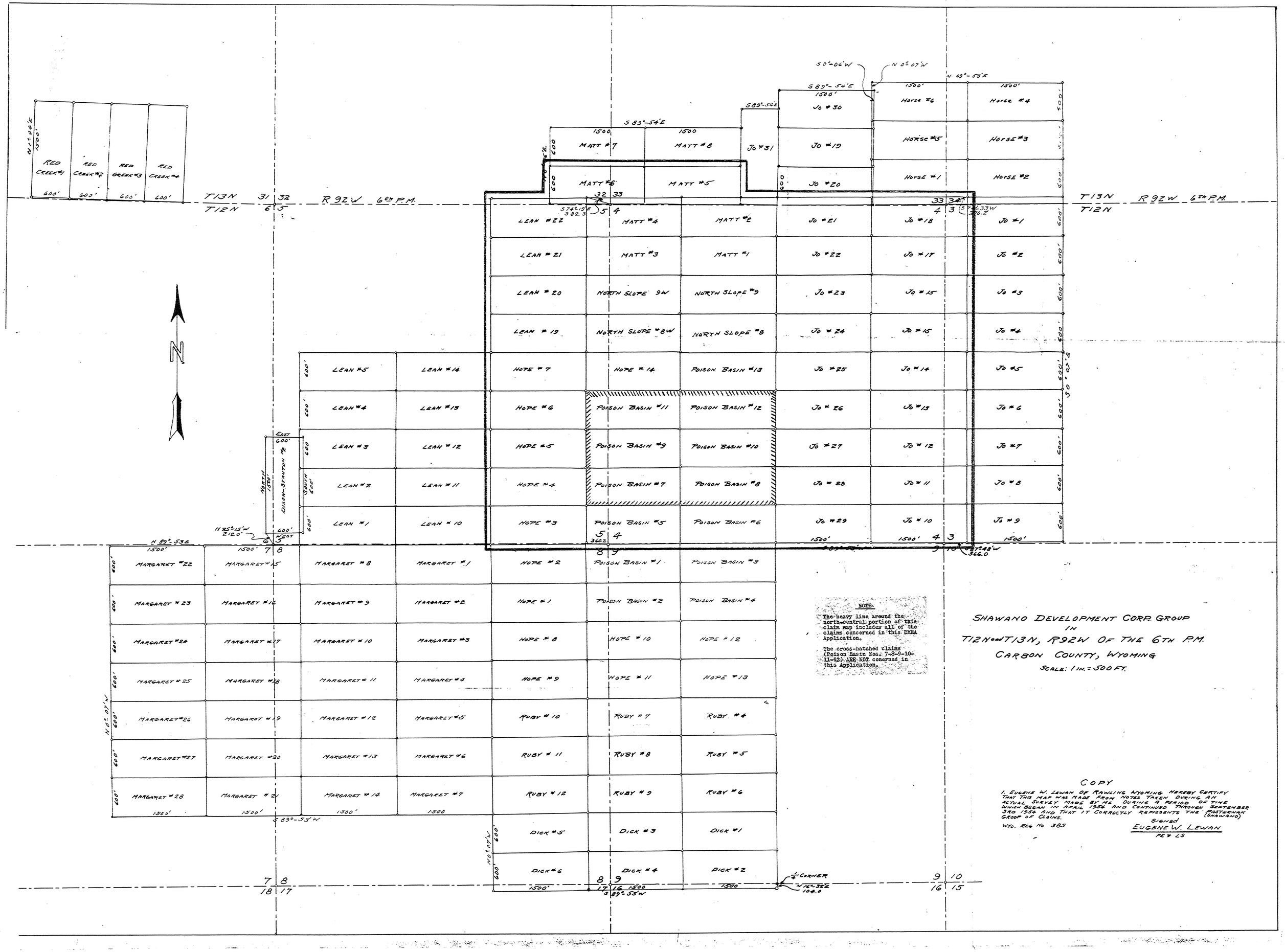



FIGURE 5 - LOCATION OF DRILL HOLES FOR EXPLORATION PROJECT (REVISED) DMEA 4194


T13N R92W 6th P.M.
T12N
RED CREEK #1
RED CREEK #2
RED CREEK #3
RED CREEK #4
MATT #7
MATT #8
MATT #6
MATT #5
MATT #4
MATT #2
MATT #3
MATT #1
Jo #30
Jo #31
Jo #19
Jo #20
Jo #21
Jo #18
Jo #22
Jo #17
Jo #23
Jo #15
Jo #24
Jo #16
Jo #25
Jo #14
Jo #26
Jo #13
Jo #27
Jo #12
Jo #28
Jo #11
Jo #29
Jo #10
Jo #1
Jo #2
Jo #3
Jo #4
Jo #5
Jo #6
Jo #7
Jo #8
Jo #9
Horse #6
Horse #4
Horse #5
Horse #3
Horse #1
Horse #2
LEAH #22
LEAH #21
LEAH #20
LEAH #19
LEAH #5
LEAH #14
LEAH #4
LEAH #13
LEAH #3
LEAH #12
LEAH #2
LEAH #11
LEAH #1
LEAH #10
HOPE #7
HOPE #14
HOPE #6
HOPE #5
HOPE #4
HOPE #3
HOPE #2
HOPE #1
HOPE #8
HOPE #10
HOPE #12
HOPE #9
HOPE #11
HOPE #13
NORTH SLOPE 9W
NORTH SLOPE #9
NORTH SLOPE #8W
NORTH SLOPE #8
POISON BASIN #13
POISON BASIN #11
POISON BASIN #12
POISON BASIN #9
POISON BASIN #10
POISON BASIN #7
POISON BASIN #8
POISON BASIN #5
POISON BASIN #6
POISON BASIN #1
POISON BASIN #3
POISON BASIN #2
POISON BASIN #4
MARGARET #22
MARGARET #15
MARGARET #8
MARGARET #1
MARGARET #23
MARGARET #16
MARGARET #9
MARGARET #2
MARGARET #24
MARGARET #17
MARGARET #10
MARGARET #3
MARGARET #25
MARGARET #18
MARGARET #11
MARGARET #4
MARGARET #26
MARGARET #19
MARGARET #12
MARGARET #5
MARGARET #27
MARGARET #20
MARGARET #13
MARGARET #6
MARGARET #28
MARGARET #21
MARGARET #14
MARGARET #7
RUBY #10
RUBY #7
RUBY #4
RUBY #11
RUBY #8
RUBY #5
RUBY #12
RUBY #9
RUBY #6
DICK #5
DICK #3
DICK #1
DICK #6
DICK #4
DICK #2
DIXON-STANTON #2
EAST 600'
NORTH 1500'
SOUTH 600'
WEST 600'
N 35°-15'W 212.0'
N 89°-53E 1500'
S 89°-53'W
N 0°-07'W
S 0°-02'W
N 0°-07'W
S 89°-54'E
N 89°-53'E
S 74°-19'E 382.3
S 74°-33'W 320.2
S 89°-48'W 356.0
N 16°-32'E 104.0
S 89°-55'W
1/4 CORNER
NOTE:
The heavy line around the north-central portion of this claim map includes all of the claims concerned in this DMRA application.
The cross-hatched claims (Poison Basin Nos. 7-8-9-10-11-12) ARE NOT concerned in this Application.
SHAWANO DEVELOPMENT CORP. GROUP
IN
T12N and T13N, R92W OF THE 6TH P.M.
CARBON COUNTY, WYOMING
SCALE: 1 IN. = 500 FT.
COPY
I, EUGENE W. LEWAN OF RAWLINS, WYOMING, HEREBY CERTIFY THAT THIS MAP WAS MADE FROM NOTES TAKEN DURING AN ACTUAL SURVEY MADE BY ME DURING A PERIOD OF TIME WHICH BEGAN IN APRIL 1956 AND CONTINUED THROUGH SEPTEMBER 3RD 1956 AND THAT IT CORRECTLY REPRESENTS THE POSTERNAK (SHAWANO) GROUP OF CLAIMS.
WYO. REG. No. 385
SIGNED
EUGENE W. LEWAN
REG. LS

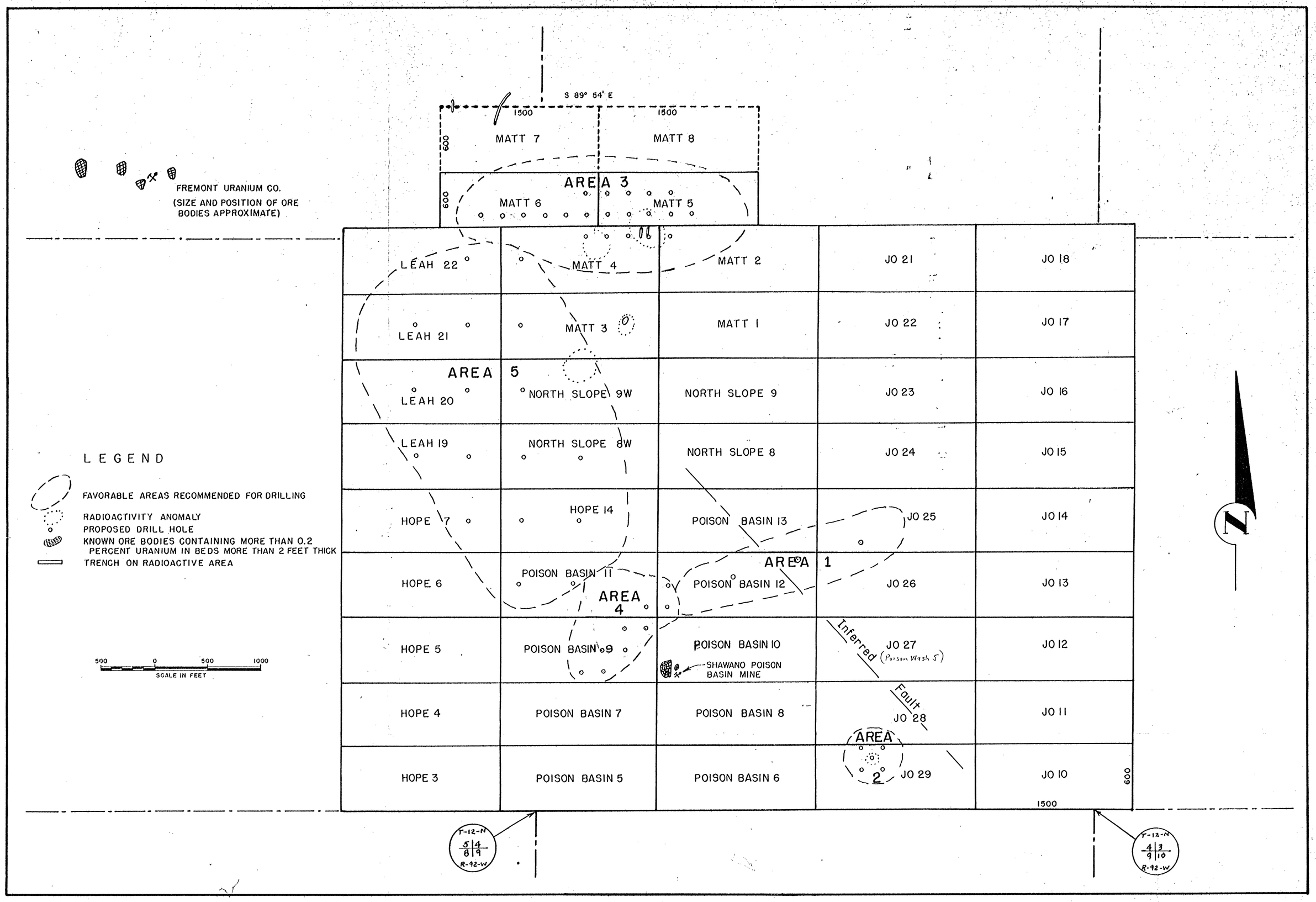
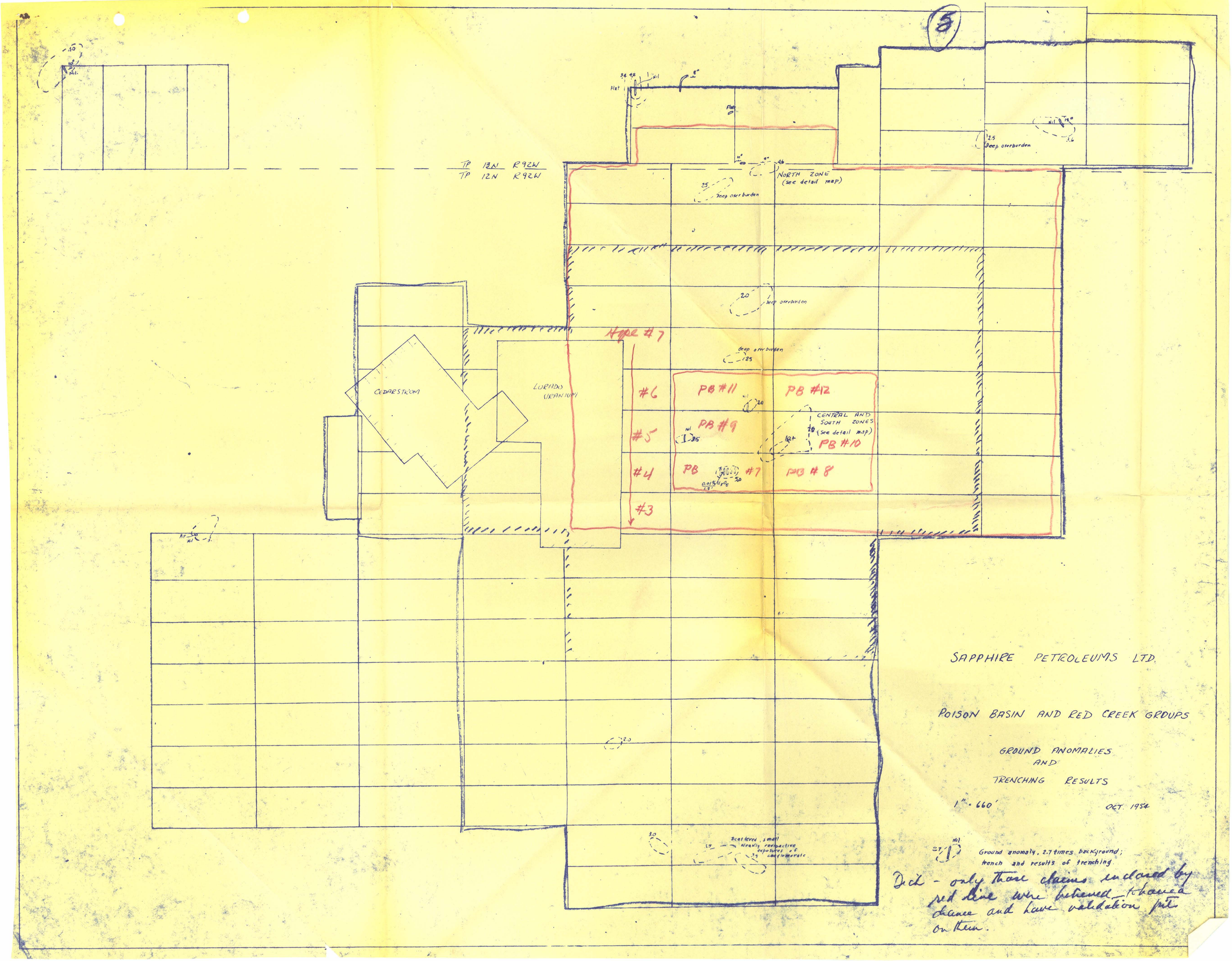
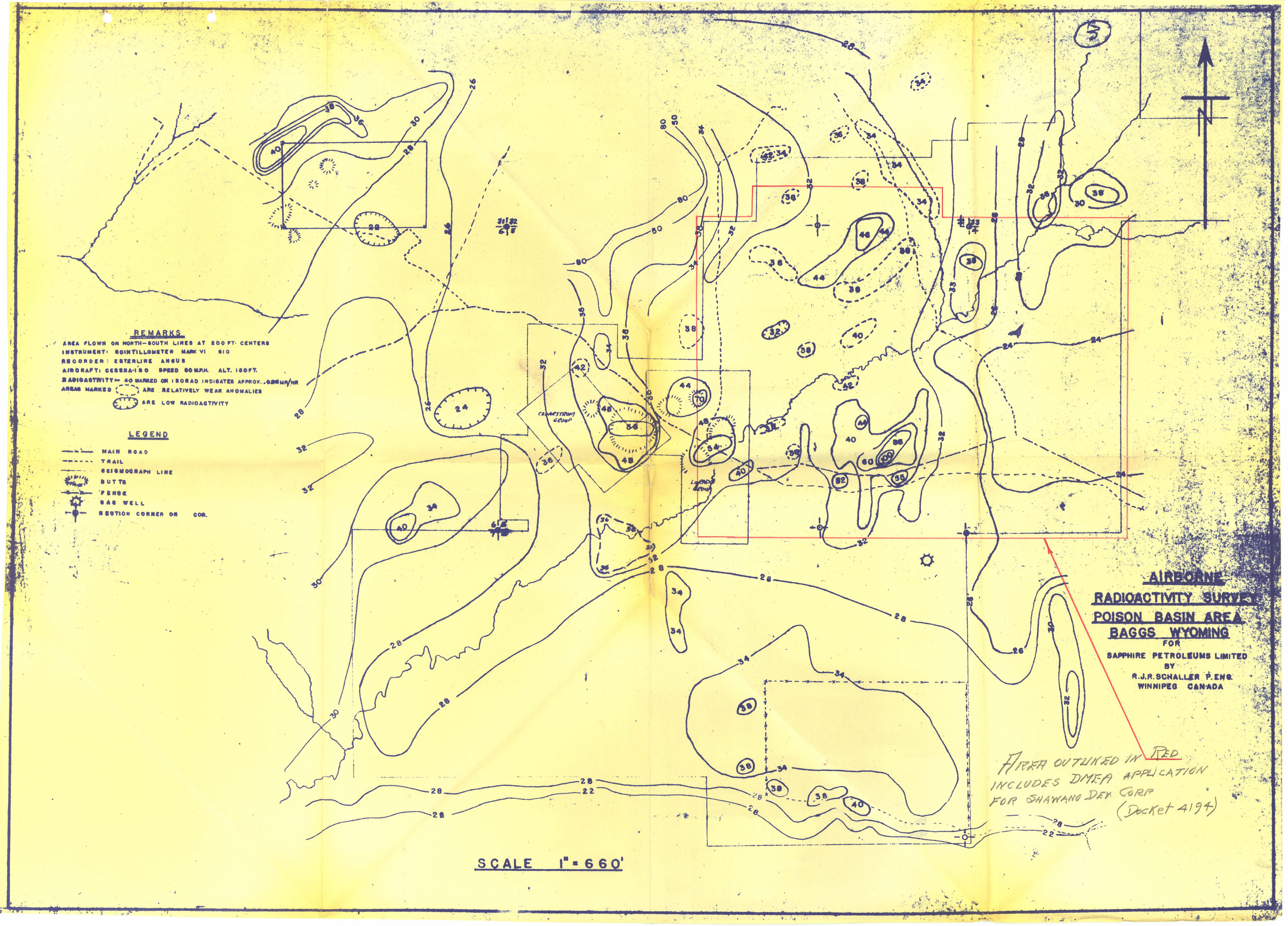



FIGURE 5 – LOCATION OF DRILL HOLES FOR EXPLORATION PROJECT (REVISED) DMEA 4194


5
TP 13N R92W
TP 12N R92W
NORTH ZONE
(see detail map)
Deep overburden
CEDARSTROM
LORADO
URANIUM
Hope #7
#6
#5
#4
#3
PB #11
PB #12
PB #9
PB #10
PB #7
PB #8
CENTRAL AND
SOUTH ZONES
(see detail map)
Scattered, small
weakly radioactive
exposures of
conglomerate
SAPPHIRE PETROLEUMS LTD.
POISON BASIN AND RED CREEK GROUPS
GROUND ANOMALIES
AND
TRENCHING RESULTS
1" = 660'
OCT. 1954
Ground anomaly, 2.7 times background;
trench and results of trenching
Dick - only those claims enclosed by
red line were between chance
chance and have validation pits
on them.


REMARKS
AREA FLOWN ON NORTH-SOUTH LINES AT 200 FT. CENTERS
INSTRUMENT: SCINTILLOMETER MARK VI 610
RECORDER: ESTERLINE ANGUS
AIRCRAFT: CESSNA-180 SPEED 90 M.P.H. ALT. 150 FT.
RADIOACTIVITY — 40 MARKED ON ISORAD INDICATES APPROX. .020 MR/HR
AREAS MARKED ARE RELATIVELY WEAK ANOMALIES
ARE LOW RADIOACTIVITY
LEGEND
MAIN ROAD
TRAIL
SEISMOGRAPH LINE
BUTTE
FENCE
GAS WELL
SECTION CORNER OR COR.
CLEARSTREAM GROUP
LEGEND GROUP
SCALE 1" = 660'
AIRBORNE
RADIOACTIVITY SURVEY
POISON BASIN AREA
BAGGS WYOMING
FOR
SAPPHIRE PETROLEUMS LIMITED
BY
R.J.R. SCHALLER P.ENG.
WINNIPEG CANADA
AREA OUTLINED IN RED
INCLUDES DMEA APPLICATION
FOR SHAWANO DEV CORP
(Docket 4194)