DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4671

1114

2 4 JUL 1957

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(Withdrawn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 (Pseudo in Term.Agt.)
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 w/3cc's of bids - see also bid sheet. 6/3/57
(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
Reported Inactive 12/28/59

9774

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Washington office pertaining to Contract Idm-E1114, Docket DMEA-4671 (uranium), dated July 24, 1957, with

Geo-Resource Corporation
1215 E. Thurston Avenue
Spokane 4, Washington

for the purpose of determining the amount of royalty payable to the U. S. Government on sales of minerals from property referred to as the Blue Mountain Property located in Stevens County, Washington, during the period September 9, 1959, through February 16, 1964.

In accordance with the July 11, 1958, Termination Agreement, Article 8, and Amendment No. 2 of the contract, royalty is payable on all minerals produced from the land described in Article 2 and Annex I of the contract, as amended, for a period of 11 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. A Report of Review dated November 6, 1958, indicated accepted costs under the exploration contract amounting to $15,084.07 with the Government's contribution on a 75 percent basis being $11,313.05.

The status of the project, the scope of review, and the reasons therefor are stated on page 2.

This review found no sales subject to the Government's royalty subsequent to the period covered by a prior Report of Royalty Review, which also found no sales subject to the Government's royalty through September 8, 1959. Accordingly, as of February 16, 1964, the royalty account of this project was found to be:

Total Royalty Payable	$ -0-
Total Royalty Paid	-0-
Balance of Royalty Due	$ -0-

E. D. Talbert, OME Auditor

February 24, 1964

Idm-E1114 Geo-Resource Corporation DMEA-4671

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

This contract, as amended, provides that the Operator, as principal if the producer or as surety if not the producer, shall pay to the Government a percentage royalty on all minerals produced from the land thereunder. The land consists of all of sections 10 and 15, T. 29 N., R. 38 E., Washington Meridian. At the time the contract was executed the Operator, formerly known as Mine Consultants, Inc., was in possession of section 10 by virtue of a May 10, 1957, Operating Agreement with Grandview Mines, which company held the property under a February 19, 1957, agreement (approved by the State of Washington) with eight lessees of the State of Washington. Consents to Lien and Subordination Agreements were executed by Grandview Mines on July 8, 1957, and by the eight State lessees on July 22, 1957.

At the time section 15 was added to the contract by Amendment No. 2 the Operator was in possession thereof pursuant to a June 27, 1957, Operating Agreement with the Universal Mining Corporation, which company obtained the property under a June 29, 1956, Warranty Mining Deed from Taylor Land & Livestock Company, et al. A Consent to Lien and Subordination Agreement was executed by Universal Mining Corporation on September 24, 1957.

Exploration work under the contract was discontinued November 27, 1957, due to adverse weather conditions and was not resumed due to financial difficulties of the Operator. There was no production during the exploration period and an OME regional representative reported the property inactive thereafter to December 31, 1958.

In an October 7, 1963, reply to a MME Form 63 inquiry, the Spokane National Mines, Inc., 414 Fernwell Building, Spokane 1, Wash., advised that: (a) it was the successor corporation to Universal Mining Corporation; (b) Geo-Resource Corporation went out of business in late 1959; and (c) no mining had been done in section 15.

In a February 16, 1964, reply to a MME Form 63 inquiry, Eskil Anderson "for Grandview Mines" indicated that: (a) no production had occurred in section 10; and (b) all leases in that section had been cancelled by the State of Washington on July 13, 1959, due to delinquency in rental payments, failure to reply to notices, and failure to submit proof of labor.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(a) The files indicate that no minerals have been produced from the land since the date of the contract;

(b) The property has been inactive since November 1957; and

(c) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible royalty which might be disclosed.

1/6 Mr. Murphy

225

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Office of Minerals Exploration, Washington, D. C., pertaining to Contract No. Idm-E1114, Docket No. DMEA-4671 (Uranium), dated July 24, 1957, with

Geo-Resource Corporation
1215 E. Thurston Avenue
Spokane 4, Washington

for the purpose of determining the amount of royalty due the U. S. Government on sales of minerals from property referred to as Blue Mountain Mine located in Stevens County, Washington, during the period July 24, 1957, through September 8, 1959.

In accordance with Termination Agreement dated July 11, 1958, royalty is payable on all minerals mined or produced from the land described in Article 2 of the contract for a period of 11 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. A Report of Review in lieu of final cost audit dated November 6, 1958, indicated accepted costs under the exploration contract amounting to $15,084.07 with the Government's contribution, on a 75 percent basis, being $11,313.05.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(1) The contract was terminated November 30, 1957, prior to completion of the exploration work, "pseudo" certification being included in the termination agreement even though no significant amount of uranium ore had been revealed;
(2) Semi-annual reports by representatives of the Field Team, Region I, and other documents in the files do not disclose any production or sales of minerals from this property subject to Government royalty during the exploration project or subsequent thereto; and
(3) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible royalty which might be disclosed.

The review indicated that there has not been any production or sales of minerals from the land described in Article 2 of the contract since July 24, 1957, and no royalty is due the Government.

C. E. Fisher
C. E. Fisher, OME Auditor

October 20, 1959

DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

CHECK SHEET OF EXAMINER REPORT

Operator's Name Geo-Resource Corporation

Address 1215 E. Thurston Avenue

Spokane, Washington

Exploration Contract No. Idm-E1114

Docket No. DMEA-4671

		Check One Yes	Check One No.
1.	(a) Does the Operator stockpile ore subject to royalty repayment?		X
	(b) If so, is segregation and identification procedure adequate?		
2.	(a) Does Operator commingle production subject to DMEA or OME royalties with exempt production?		X
	(b) If so, do you consider the allocation of the commingled production equitable?		
3.	(a) Does the Operator stockpile mine or mill rejects (low grade ore, tailing, middlings, etc.) that may have potential value within the royalty payment period?		X
	(b) If so, are adequate records maintained on such material to protect the Government's interest?		
4.	Do you consider the assay controls in effect are adequate?	X	
5.	Do you consider that the manner of disposing of production gives the Government its fair royalty returns?	X	
6.	Do your periodic examinations of operations indicate the Operator is properly reporting his production of ores subject to DMEA or OME royalties?	X	
	Does the Operator buy from or sell to other Operators?		X
	Comment on any item 2 (b) to 6 if answer is No.		

Property inactive.

September 8, 1959

S. W. Zoldok

S. W. Zoldok

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION
REPORT OF AUDIT

RECEIVED
NOV 10 1958
O.M.E.

I have reviewed the Monthly Reports of:

Geo-Resource Corporation
1215 E. Thurston Avenue
Spokane 4, Washington

pertaining to Exploration Project Contract No. Idm-Ellll, Docket No. DMEA-4671, including Amendment Nos. 1 and 2, and a Termination Agreement dated July 11, 1958, for the months of August 1957 to January 1958, inclusive, covering a project for the exploration of Uranium, on property known as the Blue Mountain Mine, located in Stevens County, Washington.

My review included an examination of the Monthly Reports (Forms MP-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, verification of work performed by reference to Field Team Reports and correspondence, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the reasons given on the attachment to this report.

The review disclosed the following facts in regard to the amount paid or to be paid the contractor:

Total cost as billed by the Contractor		$15,441.67
Exceptions (schedule attached):		
Prior to this review	$ -0-	
Herewith	357.60	357.60
Total Accepted Cost		$15,084.07

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Eleven Thousand Three Hundred Thirteen and 5/100 Dollars is valid and proper, provided that the Regional Executive Officer, the Director, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

Amount payable to Operator	$11,313.05
Amount reimbursed	11,281.26
Balance due Operator	$ 31.79

Ok to Pay.
11/20/58

George Mayor

November 6, 1958

George Mayor, OME Auditor

Reasons for Report of Review in lieu of a final audit

14 Geo-Resource Corporation DMA-4671

(a) the administrative cost to the Government of an audit would be excessive in relation to the estimated amount of possible disallowance thereunder; and

(b) the Monthly Reports were supported by documentary proof of the costs incurred under the terms of the contract, and of the total accepted costs, a major portion ($11,994.00) covered bulldozer work and diamond drilling, performed at unit rates under independent contracts and the balance ($3,090.07) represents other reimbursable costs.

Schedule of Exceptions

Idm-K1114 | Geo-Resource Corporation | IMRA-4671

	Amount
Operator's Final MF-104 Voucher for January 1958, shows Payroll Taxes for 4 months ending November 30, 1957, in amount of $357.60, computed on salary of $2,400.00 paid to George B. Weaver, Superintendent at a tax rate of 14.9%. This was the estimated rate shown in contract, whereas the actual rate was 2.25% for F.I.C.A. and 2.70% for Unemployment Compensation Insurance or a total rate of 4.95%. In addition to the incorrect rate being used the Operator did not furnish any documental proof or evidence that a payroll tax was due on the salary of $2,400.00 paid to George B. Weaver, Superintendent. It was also determined that the Operator had not paid any payroll taxes as of November 4, 1958, therefore the entire payroll tax claimed is disallowed.	$357.60
Disallowance	$357.60

Government's copy

OFFICE
RECEIVED
DATE
10/6/58 Murphy 200

TERMINATION AGREEMENT

It is agreed this 11th day of July, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Geo-Resource Corporation, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E1114 (Docket No. DMEA-4671), dated July 24, 1957, as amended, hereinafter called the "Contract," that:

1. Effective November 30, 1957, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute only to the allowable costs of work performed prior to November 30, 1957.

3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including the rendering of the final report and final account.

4. All rights of the Government respecting percentage royalty and liens to secure the payment thereof, reports (including preservation of Operator's records), accounts, audits, and the right to recover any overpayment, are hereby preserved.

5. 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 the royalty on production provided for in the Contract, in the same manner and amount, and for the same period, and subject to the same conditions provided in the Contract, as if certification of discovery or development had been made, such certification being hereby waived by the Operator.

Long
Douglas

App'd. Sol. Off.

Murphy
Kyburz
Chamberlin
Selfridge
Johnson

6. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract, except as otherwise provided in this Termination Agreement.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By C. Mitchenary
Administrator, Defense Minerals
Exploration Administration

GEO-RESOURCE CORPORATION

By William D. Weaver

Title President

JUSTIFICATION FOR TERMINATION AGREEMENT

Contract No. Idm-E1114
Docket No. DMEA-4671
Geo-Resource Corporation

A contract was executed July 24, 1957 to explore sec. 10, T. 29 N., R. 38 E., W.M., Stevens County, ~~Colorado~~ Washington. The work was divided into two stages. Stage I consisted of bulldozing 7 trenches and core drilling 18 holes to explore for uranium ore deposits in a northeasterly trending quartz monzonite-meta sediments contact zone that traverses the property. Stage II consisted of additional core drilling to further explore favorable areas indicated by the Stage I work.

Work was started July 31, 1957 and was discontinued November 28, 1957, because snow made the roads virtually impassable. Amendment No. 2 authorized a period of recess starting November 28, 1957, and ending not later than April 15, 1958. The same amendment (item 5) added sec. 15, T. 29 N., R. 38 E., W.M., to the contract area and provided an additional Stage III to explore the new area.

Work under the contract was not resumed by April 15, 1958, and in a letter dated June 2, 1958, Mr. William D. Weaver, President, stated that the corporation had been unsuccessful in securing further capital to finance its participation in the contract and requested that the contract be terminated. In a letter to Washington, dated June 6, 1958, the Field Team enclosed Mr. Weaver's letter, and recommended that a mutual termination agreement be prepared.

Of the work authorized only the seven trenches and seven of the eighteen holes in Stage I were completed. Holes 1, 2, and 3, were logged by the AEC. The highest readings indicated 3 times background in Hole 1, from 100 to 120 feet, at which point the hole caved; and at 2 times background in Hole 3 at 85 feet. Holes 4 and 5 were not logged. Hole 6, logged by the Operator with a Babbel probe, registered up to 2 times background. Hole 7, logged by the Operator with a Hoffman probe, registered up to 2.5 times background. No uranium minerals were identified by the Field Team examiners in any of the core or cuttings.

On the basis of the results of the work completed thre are no grounds for certifying a discovery or development. However, the completed work has not adequately tested the target area.

The contract was approved on the ~~basis~~ premise that the property might contain ore bodies similar to those at the Midnite mine, 7 miles southwest of section 10, and on the same type of contract. Since there is a fair possibility that uranium ore does occur on secs. 10 and 15, this Division agrees with the Field Team that the contract be terminated, however, the termination agreement should contain a pseudo-certification to protect the Government's share of the cost of the work completed to date.

F M Murphy

F. M. Murphy, Mining Engineer
Div. of Rare & Misc. Metals

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DMEA
RECEIVED DEC 30 1957

DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
GEO-RESOURCE CORPORATION
DOCKET NO. DMEA-4671

AMENDMENT NO. 2

It is agreed this 19th day of December, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and the Geo-Resource Corporation, hereinafter called the "Operator," that Exploration Project Contract No. Idm-E1114 (Docket No. DMEA-4671), dated July 24, 1957, as amended, hereinafter called the "Contract," is further amended as follows:

1. (a) Work under the Contract shall be suspended during the period beginning November 30, 1957, and ending not later than April 15, 1958.

(b) The Government shall not contribute to any costs incurred by the Operator during the period of suspension or to any costs of rehabilitation or repair which in its opinion would not have occurred had there been no suspension of work.

(c) The Operator at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work and any property in which the Government has an interest.

2. In Article 3 of the Contract the time fixed for completion of the work is extended from June 1, 1958, to November 15, 1958.

3. In Article 8(b)(2) of the Contract, the maximum period for royalty payments and lien for the payment thereof is extended from 10 to 11 years.

4. In Article 5 of the Contract, the estimated total cost of the project is increased from $45,960.00 to $53,972.00, and the amount of Government participation at 75 percent is increased from $34,470.00 to $40,480.00.

5. Under Annex I of the Contract the following land is added to and included in the Contract:

Section 15, T. 29 N., R. 38 E., W.M., Stevens County, Washington.

The Operator is in possession of said Section 15 pursuant to the terms of an Operating Agreement executed June 27, 1957, with the Universal Mining Corporation. A Consent to Lien and Subordination Agreement executed by the Universal Mining Corporation is attached and made a part hereof.

6. In Exhibit "A":

(a) Under Description of the Work, the following new Stage is added:

Stage III

Work under this Stage shall be subject to the General Provisions of the Contract and shall consist of bulldozing trenches and preparing access roads and drill sites, and core-drilling four holes at the approximate locations shown on the map entitled "Figure 1, Map Showing location of proposed work in sec. 15, T. 29 N., R. 38 E., W.M. . . .," attached and made part hereof.

Bulldoze two trenches, each about 100 feet long, along the side hill between the open cut and the contact of the metasediments (Togo formation) and the granite (Loon Lake) to intersect the possible extensions of the shear zones. These trenches shall be completed first. The remaining bulldozer hours shall be used to bulldoze cuts to expose the granite-metasediment contact at several places along the north side of the tongue of granite that protrudes into the metasediments.

Not more than four holes aggregating 700 feet shall be drilled under this Stage III of the Contract.

The maximum depth of an individual hole shall not exceed 200 feet. Holes Nos. 2 and 4 shall be inclined approximately -60° to intersect both the vertical shear zone and the granite contact. Holes Nos. 1 and 3 shall be drilled vertically to explore the metasediments near the contact. Holes Nos. 1, 2, and 3 shall be collared within 100 feet of the metasediment-granite contact.

(b) Under Estimated Costs of the Project, the Summary at the end thereof is deleted and the following Actual Costs and Summary are added:

Actual Costs

Stage III

Category (1) Independent Contracts

Bulldozer Work:

Access roads and drill sites, 10 hours @ $17.50/hr.	$175.00	
Trenches, 40 hours @ $17.50/hr.	700.00	
Transporting dozer, 100 miles @ $1.00/mile	100.00	
Diamond drilling:		
Core drilling, 700 feet @ $6.00/ft. 1/	4,200.00	
Driving standpipe, 100 feet @ $7.50/ft.	750.00	
Cementing and drilling out or reaming and casing, 60 feet @ $3.00/ft.	180.00	
Standby and set-up time, 20 hours @ $7.50/hr.	150.00	$6,255.00

Category (2) Personal Services		
Subcategory (a) Supervision		
Supervisor, 1½ months @ $600/mo.	$900.00	
Subcategory (b) Technical Services		
Consulting geologist - 6 days @ $75/day	450.00	
Subcategory (c) Labor	None	$1,350.00
Category (3) Operating Materials and Supplies		
Gasoline, 100 gallons @ $0.36/gal.	$36.00	
Sample sacks, 30 @ $0.35/each	10.50	
Cardboard core boxes, 20 @ $1.00/each	20.00	$66.50
Category (4) Operating Equipment		
Subcategories (a) and (b) Rental and Purchases	None	
Subcategory (c) Depreciation		
Jeep 105 truck, 1½ months @ $33.33/mo.	$50.00	$50.00
Categories (5) and (6)	None	
Category (7) Miscellaneous:		
Payroll taxes 14.9% of supervisor's salary ($900)	$134.10	
Chemical analyses for U_3O_8 content of 30 samples @ $5.00/sample	150.00	
Transportation of samples	9.00	
		$293.10
Estimated Total Cost Stage III		$8,014.60

Long
Henry
Murphy
Kubicke
Chambers
Selfridge
Johnson

S U M M A R Y

Estimated Total Cost Stage I	$28,403.92	
Estimated Total Cost Stage II	$17,554.20	
Estimated Total Cost Stage III	$8,014.60	
Estimated Total Cost of Project (rounded)		$53,972.00
Government Participation @ 75% (rounded)		$40,480.00

1/ See Article 13(d).

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C. Mittendorf
Administrator, Defense Minerals
Exploration Administration

GEO-RESOURCE CORPORATION

By Richard Weaver

Title Secretary

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

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

RECEIVED DEC 30 1957 D.M.E.A.

RECEIVED NOV 4 57 D.M.E.A.

CONSENT TO LIEN and SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Stevens, State of Washington, described as follows: 2/

Sections 3 and 15, both in Township 29 North, Range 38 East, W.M.

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

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

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

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

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

Operating Agreement held by Geo-Resource Corporation
Suite 525-528 Hutton Building - Spokane 4, Washington.

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in Book _____, Page _____, official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

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

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

see 7.0 memo 1/05/66

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

Dated this 23rd day of September, 1957.

UNIVERSAL MINING CORPORATION [Seal] _____ [Address]

Geo. E. Lebrun [Seal] _____ [Address]

President [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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

Gladys McGregor
[Corporate Seal]

United States
Department of the Interior

Prepared for
Defense Minerals Exploration Administration
Examination Report

Docket No. DMEA 4671

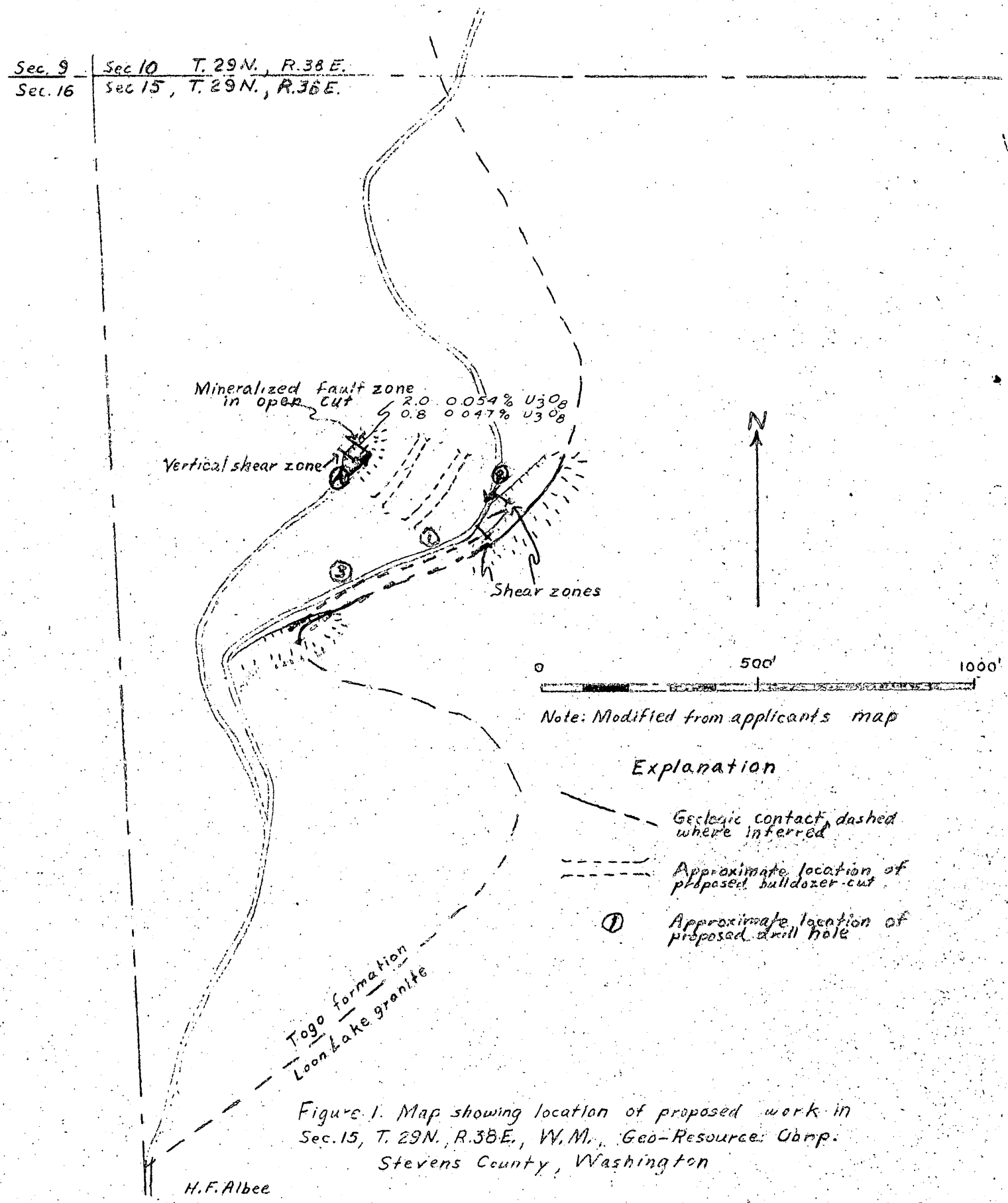

Figure 1. Map showing location of proposed work in Sec. 15, T. 29 N., R. 38 E., W.M., Geo-Resource Corp. Stevens County, Washington

H.F. Albee

December 4, 1957

Docket No. DMEA-4671
Contract No. Idm-E1114
Geo-Resource Corporation
Stevens County, Washington

Justification for Amendment No. 2

Section 10, T. 29 N., R. 38 E., W.M., is the present project area under the contract. Section 15, the additional project area under this proposed amendment joins sec. 10 to the south. At the time thefirst application for exploration aid, the Operator did not control sec. 15. Rights of possession were obtained and the Operator having completed the trenches under Stage I of the contract moved the bulldozer to sec. 15 to trench anomalous radioactive areas indicated by a scintillometer traverse.

Uranium, in the form of sparsely distributed autunite, was found at the surface along a vertical fault at a point about 2,500 feet southwesterly from the southernmost DMEA work in sec. 10. The mineralized outcrop is in the metasediments well above the granite-metasediment contact topographically. As all known uranium deposits in the area have been found at or near the contract on the metasediment side, the mineralized outcrop may reflect such a deposit.

On October 11, 1957, in a letter addressed to the Field Team, the Operator requested an extension of the contract to explore sec. 15 at an estimated cost of $227,288.71. The Field Team suggested to the Operator that the proposal as submitted was too elaborate; on October 23, 1957, a revised proposal in the amount of $34,831 was submitted.

The field examiners and Field Team conclude that the geologic probability of making a significant discovery on sec. 15 is fair, and recommended a modest exploration program costing $8,014.60

In a memorandum, dated November 29, 1957, W. P. Williams, USGS, concurred in their recommendation. The USBM commodity member's alternate also concurred.

The writer agrees that the reduced exploration program recommended by the Field Team has a fair chance for success since the surface indications of uranium deposition in sec. 15 are better than the average showings in the area.

F M Murphy

F. M. Murphy

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DMEA
RECEIVED DEC 9 1957
DATE | INITIALS | CODE

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Long
Sawyer
Murphey
Ellis
Talbert
Selfridge
Johnson

EXPLORATION PROJECT CONTRACT
GEO-RESOURCE CORPORATION
DOCKET NO. DMEA-4671

AMENDMENT NO. 1

It is agreed this 27th day of November, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration and Geo-Resource Corporation, that Exploration Project Contract No. Idm-E1114 (Docket No. DMEA-4671), dated July 24, 1957, is amended, effective July 24, 1957, as hereinafter specified:

In Exhibit A, Description of the Work, the third paragraph under Stage I is revised to read as follows:

> "Along the contact exposed by the trenches drill not in excess of eighteen (18) holes aggregating not more than 3,000 feet. The holes shall be collared within 150 feet of the contact, and shall be spaced not less than 200 nor more than 300 feet apart. One hole shall be drilled on the granite side of the contact; the remainder, which are to be drilled on the metasediment side, shall be placed to intersect the contact at a depth of approximately 200 feet."

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, nor any item of allowable cost which is expressly designated "maximum".

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C. Mittendorf
Administrator, Defense Minerals Exploration Administration

GEO-RESOURCE CORPORATION

By Richard Weaver

Title Secretary

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DATE	INITIALS	CODE

Government's copy

MF-200
(Revised June 1954)

Docket No. DMEA - 4671

Commodity Uranium

Contract No. Idm-E 1114

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this 24 JUL 1957 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] GEO-RESOURCE CORPORATION, a State of Washington corporation, whose mailing address is Suite 525-528 Hutton Building, Spokane 4, Washington, 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, Plate 1.

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 Washington, County of Stevens, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

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

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: See Annex I

(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: See Annex I

(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. The work to be performed is described in Exhibit "A." The Operator on or before AUG 1 1957 shall commence the work, and on or before June 1, 1958 (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 estimated total allowable costs set forth in Exhibit "A"~~, except as otherwise provided in Exhibit "A" with respect to stages of work. (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 $45,960.00 The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $34,470.00: *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. **See Article 13.**

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 2. 8. **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 stages of work."

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

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

(d) Notwithstanding any other provision of the contract, the allowable unit cost per foot of a drilling item is the average unit cost per foot computed on the basis of all the actual unit costs of said drilling item incurred by the Operator: Provided, That the Government will not contribute to any portion of an average unit cost of a drilling item that exceeds the estimated unit cost of said item set forth in the contract.

Legal
Appd. Sol. Off.
Chambers
Martin
Johnson

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C O Mitterdorf

Administrator, Defense Minerals Exploration Administration

GEO-RESOURCE CORPORATION
(Operator)

By William D. Weaver

Title President

I, Richard Weaver, certify that I am the secretary of the corporation named as Operator herein; that William D. Weaver who signed this contract on behalf of the Operator, was then President 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.

Richard Weaver

[CORPORATE SEAL]

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

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DMEA
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DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
GEO-RESOURCE CORPORATION
DOCKET NO. DMEA-4671

ANNEX I

The land referred to in Article 2 of the contract consists of all of section 10, T. 29 N., R. 38 E., W.M., Stevens County, Washington. Contracts for mining in section 10 were executed November 28, 1956, by the State of Washington as follows:

Name	Contract No.	Description of Land
Mae C. Hamilton	417	W½ of the SE¼
E. K. Barnes	421	W½ of the NE¼
John H. Roberts	416	W½ of the NW¼
Ruby K. Anderson	419	W½ of the SW¼
Amy Satterstrom	420	E½ of the SE¼
Paul T. Hoetzel	415	E½ of the NE¼
E. O. Dressel	414	E½ of the NW¼
Ellamae Anderson	418	E½ of theSW¼

In a Lease Agreement, dated February 19, 1957, the above-named individuals as a group leased their respective interests in section 10 to Grandview Mines, a corporation, retaining a 1 percent royalty for each individual. This Lease Agreement was approved by the State of Washington, on April 15, 1957.

In an Operating Agreement, dated May 10, 1957, Grandview Mines assigned its rights under the above-mentioned Lease Agreement to Geo-Resource Corporation, retaining a royalty of 12½% of net smelter returns on all minerals. 20%

Consents to Lien and Subordination Agreements signed by the above-named individuals and Grandview Mines are attached hereto and made part hereof.

The Consent to Lien and Subordination Agreement by the State of Washington is waived.

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

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator Geo-Resource Corporation
Docket No. DMEA- 4671
Contract No. Idm-E
Contract Date

RECEIVED AUG 5 1957 D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Stevens, State of Washington, described as follows: 2/

in a Lease Agreement, dated February 19, 1957, between Grandview Mines, a corporation, and the undersigned.

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

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

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

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

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

A royalty is payable to the State of Washington not to exceed 4% from production if there be any.

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in Book _____, Page _____, official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

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

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

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

Dated this _____ day of JUL 22 1957, 195__.

Mae C. Hamilton	[Seal]	1416 E. 9th, Spokane, Wash.	[Address]
E. K. Barnes	[Seal]	1008 N-19th Ave Spo Wn	[Address]
John H. Roberts	[Seal]	120 Rockwood " "	[Address]
Ruby K. Anderson	[Seal]	2308 S. Jefferson, Spokane, Wn	[Address]
Amy Satterstrom	[Seal]	821 E 35th Spokane, Wn	[Address]
Paul T. Hoetzel	[Seal]	1116 - Club Court Spokane, Wn	[Address]

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

_____ [Corporate Seal]

E. O. Dressel	Metaline Falls, Wash (Address)
Ellamae Anderson	1204 W. 18th Spokane, Wash (Address)

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

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator Geo-Resource Corporation
Docket No. DMEA- 4671
Contract No. Idm-E
Contract Date

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

RECEIVED AUG 5 1957 DMEA

To the United States of America:

Referring to that certain land in the County of Stevens, State of Washington, described as follows: 2/

All of sec. 10, T. 29 N., R. 38 E., W. M., comprising approximately 640 acres.

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

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

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

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

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

A royalty is payable to the State of Washington not to exceed 4% from production if there be any.

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in Book _____, Page _____, official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

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

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

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

Dated this 8th day of July, 1957.

Grandview Mines [Seal] _____ [Address]

By: Karl W. Jasper [Seal] President [Address]

_____ [Seal] 318 Radio Centralia [Address]

_____ [Seal] Spokane, Wash. [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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

_____

[Corporate Seal]

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RECEIVED AUG 5 1957

DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
GEO-RESOURCE CORPORATION
DOCKET NO. DMEA-4671

EXHIBIT "A"

Description of the Work

General Provisions:

The object of this project is to explore for uranium ore deposits in a northeasterly trending quartz monzonite-meta sediments contact zone that traverses the subject property. The work will consist of bulldozer trenching and core drilling holes to depths of 100, 150, and 200 feet.

The primary purpose of the trenching is to locate more accurately the exact position of the contact in order to place the drill holes to the best advantage. Sections of the trenches showing significant mineralization shall be sampled. Such samples shall be split, the Operator using one-half for assay purposes; the other half shall be stored in a suitable container properly identified as to sample number, trench number, the location where procured in the trench, the classification of the material sampled, and the length of the channel cut to obtain the sample.

Sections of core showing significant mineralization shall be split, the Operator using one-half for chemical assay purposes; the other half shall be stored with the non-mineralized core in boxes properly identified as to hole number and with markers placed in the core sections to indicate the depth represented.

The stored drill core and trench samples shall be for Government inspection and use. With previous Government approval the Operator may dispose of the core and trench samples.

The drill holes shall be logged geologically and probed radiometrically by the Operator. Records of such logging and probing, together with the assay certificates of the core and trench samples, shall be submitted with the Operator's monthly progress report, which shall also include a map or sketch showing the location of all holes and trenches completed during the reporting period.

A D-8 Caterpillar dozer or equivalent unit of any other make shall be used in cutting trenches and in preparing access roads and drill sites.

If necessary the drill holes shall be cemented and drilled out or reamed and cased. The Government will not participate in the cost of an incomplete hole or to one that bottoms less than AX core size.

The Operator shall employ a competent supervisor full time to direct the work and a consultant geologist part time to assist in completing the project in a satisfactory manner.

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

The work shall be performed in two stages. The Operator shall perform all the Stage I work and as much of Stage II work as is approved of in writing by the Government.

Stage I

The approximate location of the work to be performed under Stage I is shown on the map entitled "Plate 1, Plan, Showing Recommended Access Road, Trenches, and Diamond Drill Holes, Geo-Resources, Inc. . . .," attached hereto and made part hereof.

Bulldoze access roads, drill sites, and seven (7) trenches normal to and cutting the quartz monzonite-metasediments contact at intervals of about 400 feet.

In or adjacent to each of trenches 2, 3, 5, and 7, drill 3 holes along a line at right angles to the contact. In each line one hole shall be drilled about 50 feet from the contact to a depth of 100 feet in the quartz monzonite; two holes shall be drilled in the metasediments at distances of about 50 and 150 feet from the contact to depths of 150 and 200 feet, respectively. No holes shall be drilled in trenches 1, 4, and 6, but at approximately 150 feet on each side of these trenches and about 50 feet from the contact, holes shall be drilled to depths of approximately 200 feet in the metasediments.

Not in excess of seven (7) trenches shall be excavated nor more than eighteen (18) holes shall be drilled under this Stage I of the contract.

Stage II

Stage II will consist of additional core drilling to further explore favorable zones indicated by the trench work and drilling under Stage I.

Prepare access roads and drill sites, and drill an aggregate of not more than 2,000 feet of holes.

No hole drilled under this Stage II shall be closer than approximately 100 feet to any other hole drilled under the contract, nor within 100 feet of the boundary lines of the property.

Estimated Costs of the Project

Actual Costs

Stage I

Category (1) Independent Contracts

Bulldozer Work:		
Access roads, 60 hours @ $17.50/hr.	$ 1,050.00	
Trenches, 80 hours @ $17.50/hr.	1,400.00	
Drill site preparation, 40 hours @ $17.50/hr.	700.00	
Transporting dozer, 100 miles @ $1.00/mile	100.00	
Diamond drilling:		
Core drilling 3,000 feet @ $6.00/ft. 1/	18,000.00	
Driving standpipe 100 feet @ $7.50/ft.	750.00	
Cementing and drilling out or reaming and casing 100 feet @ $3.00/ft.	300.00	
Stand-by time, 24 hours @ $7.50/hr.	180.00	$22,480.00

Category (2) Personal Services

Subcategory (a) Supervision

Supervisor, 4 months @ $600.00/mo.	2,400.00	

Subcategory (b) Technical Services

Consulting geologist, 5 days per month 20 days @ $50.00/day	1,000.00	

Subcategory (c) Labor	None	$ 3,400.00
Category (3) Operating Materials and Supplies		
Gasoline, 300 gallons @ $0.36/gal.	$ 108.00	108.00
Category (4) Operating Equipment		
Subcategories (a) and (b) Rental and Purchases	None	
Subcategory (c) Depreciation		
Jeep station wagon, 4 months @ $33.33/mo.	133.32	133.32
Category (5) Initial Rehabilitation and Repairs	None	
Category (6) New Buildings, Fixtures, and Installations	None	
Category (7) Miscellaneous		
Payroll taxes, 14.9% of supervisor's salary ($2,400.00)	357.60	
Chemical analyses for U_3O_8 content of 300 samples @ $5.00/sample	1,500.00	
300 cardboard core boxes @ $1.00/each	300.00	
300 sample sacks @ $0.35/each	105.00	
Transportation of samples	20.00	$ 2,282.60
Estimated Total Cost, Stage I		$28,403.92

Stage II

Category (1) Independent Contracts	
Bulldozer work:	
Access roads and drill site preparation 24 hours @ $17.50/hr.	420.00
Transporting dozer 100 miles @ $1.00/mile	100.00

Diamond drilling		
Core drilling 2,000 feet @ $6.00/ft. 1/	$12,000.00	
Driving standpipe 60 feet @ $7.50/ft.	450.00	
Cementing and drilling out or reaming and casing, 60 feet @ $3.00/ft.	180.00	
Stand-by time 16 hours @ $7.50/hr.	120.00	$13,270.00
Category (2) Personal Services		
Subcategory (a) Supervision		
Supervisor, 3 months @ $600.00/mo.	1,800.00	
Subcategory (b) Technical Services		
Consulting geologist 5 days per month 15 days @ $50.00/day	750.00	
Subcategory (c) Labor	None	2,550.00
Category (3) Operating Materials & Supplies		
Gasoline 225 gallons @ $0.36/gal.	81.00	81.00
Category (4) Operating Equipment		
Subcategories (a) and (b) Rental and Purchases	None	
Subcategory (c) Depreciation		
Jeep station wagon, 3 months @ $33.33/mo.	100.00	100.00
Category (5) Initial Rehabilitation & Repairs	None	
Category (6) New Buildings, Fixtures, and Installations	None	
Category (7) Miscellaneous		
Payroll tax, 14.9% of supervisor's salary ($1,800.00)	268.20	

Chemical analyses for U_3O_8 content of 200 samples @ $5.00/sample	$ 1,000.00	
200 cardboard coreboxes @ $1.00/each	200.00	
200 sample sacks @ $0.35/each	70.00	
Transportation of samples	15.00	$ 1,553.20
Estimated Total Cost, Stage II		$17,554.20

S U M M A R Y

Estimated Total Cost, Stage I	$28,403.92	
Estimated Total Cost, Stage II	17,554.20	
Estimated Total Cost of Project (rounded)		$45,960.00
Government Participation @ 75%		$34,470.00

1/ See Article 13(d)

GEO-RESOURCE CORPORATION
TEL. MA. 4-9654
SUITE 525-526 HUTTON BUILDING
SPOKANE 4, WASHINGTON
CABLE: GEORESCO

19 April, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 3 1957

DATE	INITIALS	CODE

Mr. A. E. Weissenborn, Executive Officer
D.M.E.A. Field Team, Region I
Northwest District
South 157 Howard Street
Spokane, Washington

Re: Docket No. D.M.E.A.-4671

DMEA

Dear Mr. Weissenborn:

Based on our discussion of April 19, 1957 regards the use of geophysical methods in the Blue Mountain investigations, it is requested that application item 6 (a) be changed to read as follows:

1. 160 hrs. D-8 Bulldozing - $17.50/hr. $2800.00

1a. Geophysical Investigations:

Field Investigation	11 days @ $100	$1100.00
Interpretation	11 days @ $200	2200.00
Equipment Rental	15 days @ $ 20	300.00

Very truly yours,

/s/

Richard Weaver,
Executive Vice President

md

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by hand
APR 22 1957

U. S. G. S.
SPOKANE, WASH

GEO-RESOURCE CORPORATION
TEL. MA. 4-9654
SUITE 525-528 HUTTON BUILDING
SPOKANE 4, WASHINGTON
CABLE: GEORESCO

3 May, 1957

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DATE | INITIALS | CODE

Mr. D. R. MacLaren
United States Geological Survey
D.M.E.A. Field Team - Region I
Northwest District
South 157 Howard
Spokane, Washington

Re: Docket No. 4671

Dear Mr. MacLaren:

The enclosed bid from Paul W. Smith, bulldozing contractor, was the lowest bid we received. It is the only one that was reduced to written form. The other bids which were given over the phone by F. R. Hewett & Company and K-P Excavating Contractors, Inc. ran $18.00 per hour and higher.

Very truly yours,

William D. Weaver

William D. Weaver,
President

WDW:md
Enc.

RECEIVED
MAY 7 1957
U. S. G. S.
SPOKANE, WASH.

STATEMENT

SMITH BROTHERS
GENERAL CONTRACTORS

Alva E. Smith
Paul W. Smith

Office: [redacted] — Phone [redacted] • Res.: 114 E. Ermina Ave. — Phone [redacted] • Spokane, Washington

April 23, 1957

OFFICIAL FILE COPY
D M E A
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DATE	INITIALS	CODE

Mine Consultants
Hutton Building
Spokane, Washington

Gentlemen:

I would like to submit a bid of $17.50 per hour for an HD 15 or D8 for bulldozing on property we discussed in the Springdale area.

Sincerely yours,

Paul W. Smith

Paul W. Smith

fs

RECEIVED
MAY 7 1957
U. S. G. S.
SPOKANE, WASH.

SLAO:R:M:a

May 16, 1957

mail
al
DMEA

Mr. A. E. Weissenborn
Executive Officer, DMEA USAM cc
Field Team, Region 1, NW District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Ur.)
Mine Consultants, Inc.
Blue Mountain Mine
Stevens County, Washington

DMEA

Dear Al:

The proposal set forth in the Geo-Resource Corp. application for Defense Minerals Exploration Administration assistance receives our endorsement.

A similar project was given serious consideration prior to curtailment of AEC's participation in physical exploration. We concur with the justifying reasons for such an undertaking as stated in the third paragraph of your transmittal letter to Washington.

We will await with keen interest the forthcoming decision on this proposal.

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DMEA
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DATE	INITIALS	CODE

Sincerely yours,

Robert J. Meehan
Acting Area Manager
Salt Lake Area Office

cc: AEC, Spokane

Encls: Corres. and geologic and geochemical report loaned to Spokane office by your office.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

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RECEIVED 7 1957
DATE | INITIALS | CODE

February 28, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: New Application (Uranium)
Mine Consultants, Inc.
Blue Mountain Mine
Stevens County, Washington

Dear Mr. Selfridge:

Enclosed are three copies of an application for DMEA assistance from Mine Consultants, Inc. of Spokane, Washington. The property leases are now being processed by the State in Olympia and will be forwarded in a few days.

The applicant proposes to explore for uranium on State land north of the Spokane Indian Reservation, Stevens County, Washington, by bulldozing nine trenches and diamond drilling 44 holes to an overall depth of 8,800 feet or an average depth of 200 feet per hole, at a total estimated cost of $81,650.00 of which the Government's share will be 75 percent or $61,237.50.

This is a very intriguing application because the selection of the target area, about 7 miles northeast of the Midnite Mine, is based upon a new application of geochemical analysis of soil samples. Should the proposed program prove successful, a new tool for exploration for uranium in this area would be proven to have considerable merit. No other method has so far proven effective.

Some changes and modifications of the proposed program would appear to be in order -- possibly the program could be considerably reduced -- but the application, in our opinion, merits serious consideration. Little or no field work will be required so that the Field Team's appraisal can be made as soon as we have your comments.

By Field Team, Region I, NW District

A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew
Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures
cc: AEC (Spokane)
AEC (SLC)
USBM (2)
Geologist

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
FEB 27 1957
U. S. G. S.
SPOKANE, WASH.

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. 4671
Metal or Mineral uranium
Date Received 3-7-57
Estimated Cost $81,650.00
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: MINE CONSULTANTS, INC.
SUITE 525-528 HUTTON BUILDING
SPOKANE 4, WASHINGTON

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract
All of Section 10, Township 29 North, Range 38 East,
Stevens County, Washington

(*b*) State any mine name by which the property is known. Blue Mountain Mine

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

(*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. See Bulletin, Etc.

(*e*) If you own the land, describe any liens or encumbrances on it None

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Not applicable

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

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

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

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

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

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MAR 1957
D.M.E.A.

16—66

5. *The exploration project.*—(*a*) [redacted]te the mineral or minerals for which you wi[redacted]o explore Uranium

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

(*c*) The work will start within 15 days and be completed within 7 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated 27 February, 1957

MINE CONSULTANTS, INC.
(Applicant)

(Seal)

By William D. Weaver
William D. Weaver, Pres.

Fred O. Jones
Fred O. Jones, V. Pres.

Richard Weaver
Richard Weaver, Secy.

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

MINE CONSULTANTS INC.
SUITE 525-528 HUTTON BUILDING
SPOKANE 4, WASHINGTON

27 February, 1957

SUPPLEMENT TO D.M.E.A. FORM MF-103

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

1. (b) Mine Consultants, Inc. - a Washington corporation.

(c) William D. Weaver, President
East 1215 Thurston
Spokane, Washington

Richard Weaver, Executive Vice President and Secretary
East 1307 Thurston
Spokane, Washington

George B. Weaver, Vice President, Treasurer and Gen. Mgr.
115 West 9th
Spokane, Washington

Fred O. Jones, Consulting Geologist
West 39 26th
Spokane, Washington

3. (d) "General Requirements, Region 1 Northwest District, Application for Exploration Assistance D.M.E.A. published January 24, 1957."

4. (a) The only mining or exploration operations which have been conducted on the property consist of five shallow bulldozer trenches. The trenches were made by the Grandview Mining Company who previously held the exploration rights to the property. The trenches are located along and near the granite-argillite contact in Sample Area B shown on Plate 3 of the Geologic Report attached to this application. The position of the trenches has not been shown on the map. Two trenches cut the granite-argillite contact and are located in the grid of soil sample locations shown on the map. The other three trenches missed the contact and cut only granite or argillite above and below the contact. The trenches vary from two to four feet in depth and from 50 to 100 feet in length. Mine Consultants, Inc. had nothing to do with the trenching operations. The trenches are open and available for inspection. No mineralization was discovered, no

4. (a) Continued:
significant increase in radio activity was discovered in any of the trenches, and samples of the rock and alteration products along the contact gave negative results in tests for parts per million of uranium.

(b) There has been no past production from the property.

(c) See Geologic Report attached to application.

(d) The property is easily reached by automobile from the town of Springdale, Washington, which lies approximately twelve miles to the east. Access is by eight miles of secondary State highway (The "Hunters road"), two miles of well-maintained County dirt road, and the final two miles of pioneer road, built for a logging project in 1952. Final access to the exploration site will require construction of approximately 8000 feet of additional access road and drill trails.

Springdale is served by a branch line of the Great Northern railroad and is the logical supply point for the project. The property is approximately 25 miles from Ford, Washington, the site of Dawn Mining Company's uranium mill, now under construction.

(e) There are sufficient manpower, materials, supplies, equipment, water, and power available or readily importable to carry out the project.

5. (d) Mine Consultants, Inc. is a professional mining consulting organization which has completed considerable work for other firms as well as for its own account on uranium exploration in the area, for which this loan application is being made.

6. (a) Independent Contract

1. 400 Hrs. D-8 Bulldozing - $17.50/hr.	$ 7,000.00
2. 44 DDH/BX - 200' Average Depth at $6.50/ft.	57,200.00

(b) Consulting Geologist

1. 10 days/month at $120.00/day for 7 months	8,400.00
2. Supervision 7 months at $600.00/month	4,200.00
3. Roughneck 7 months at $400.00/month	2,800

(c) Not Applicable

(d) Not Applicable

6. Continued

(e) Not Applicable		
(f) Not Applicable		
(g) 300 Assays at $3.50 each		$1,050.00
(h) Contingencies		1,000.00
	TOTAL	$81,650.00

R. S. McClintock DIAMOND DRILL COMPANY

CONTRACTING • DIAMOND DRILLS AND SUPPLIES • DIAMOND BITS

PHONE RI. 4197
W. 418 2ND AVE.
SPOKANE, WASH.

February 6, 1957

Mine Consultants, Inc.
528 Hutton Building
Spokane, Washington

Attention: Mr. Dick Weaver

Dear Mr. Weaver:

We wish to furnish you with our tentative quotation for your company's contemplated diamond drill program on property located approximately fourteen (14) miles Southwest of Springdale, Washington in Southern Stevens County. In view of the fact that you require this quotation prior to the time that the job can be physically inspected the prices are subject to adjustment if the conditions actually encountered vary in any great degree from those anticipated.

We understand that you desire to drill some forty four (44) vertical holes, BX in size and approximating two hundred (200) feet in depth. We would expect to furnish one or two mounted hydraulic drills and the necessary water hauling equipment if required. Your company would prepare the drilling sites for our drill equipment and maintain access roads for the water hauling equipment. In addition to the drills our company would furnish personnel, drill pump rods, casing, diamond set bits and shells, corebarrels and all necessary accessories for the following prices per foot.

Size	Depth	Price Per foot
BX	0 - 200'	$ 6.95
AX	0 - 200'	6.55

If drilling to depths or in sizes not quoted is desired the price will be negotiated by the two parties concerned before work is commenced.

This work will be mobilized and demobilized for the Lump Sum of $300.00 for one machine and $125.00 for each additional machine.

In the event of delays not due to the contractor's fault or equipment breakdown, Contractor shall expect to be reimbursed for his continuing costs at the rate of $8.00 per hour. This same hourly rate, plus the cost of materials, would apply for time spent conditioning any hole.

In the event loose and caving material, water courses, or any conditions are encountered which in the contractors opinion tend to make drilling impractical without the use of casing or cement, and additional charge of $4.00 per foot for reaming casing and $4.00 per foot for placing and redrilling cement will be made. Contractor will expect to be reimbursed at the rate of 50¢ per foot for setting casing in the event of reduction of the hole size.

Our employees will be covered by Workmans Compensation to comply with the State Act and the job will be covered by Public Liability Insurance in the amounts of $100,000.00 and $300,000.00, and Property Damage in the amount of $100,000.00.

We wish to thank you for the opportunity of furnishing this quotation and to assure you of our full cooperation if you find it acceptable.

Very truly yours,

R. S. McCLINTOCK COMPANY

T. M. Welsch
Drilling Supt.

TMW/eb

MOREHEAD & LEAF

DIAMOND DRILL CONTRACTORS

N. 5345 Fairmount Place
Spokane 15, Washington

27 February, 1957

Mine Consultants, Inc.
Suite 525-528 Hutton Bldg.
Spokane 4, Washington

Attention: Mr. Richard Weaver

Dear Mr. Weaver:

You will find below our bid for diamond drilling on and near Section 10, Blue Mountain Area of Stevens County. It is understood that you contemplate drilling 44 diamond drill holes to an average depth of 200 feet. The following items outline our bid and the equipment we propose to use.

1. Drilling of a minimum of 2000 lineal feet at drill sites selected by the Company and prepared by the Company for a drilling setup.

2. All holes shall be drilled with a standard double tube ball bearing swivel tube type core barrell. Drill crews will exercise every care to recover as high percentage of core as the nature of the ground drilled will permit, and shall deliver all such core at the drill site to the person or persons designated by the Company.

3. RATES FOR DRILLING BX SIZE HOLES:
For holes to depth of 200 Ft. at the rate of $6.30 per foot.
For a depth of 200 ft. to a depth of 400 ft. $6.75 per foot.
From a depth of 400 ft. to a depth of 1000 ft. $10.00 per foot.

RATES FOR DRILLING AX SIZE HOLES:
For holes to depth of 200 ft. at the rate of $6.00 per foot.
From a depth of 200 feet to a depth of 400 feet $6.50 per foot.
From a depth of 400 feet to a depth of 1000 feet $9.50 per foot.

4. RATES FOR DRIVING STANDPIPE WHERE REQUIRED BY REASON OF OVERBURDEN:
For driving standpipe to a depth of 30 feet at the rate of $7.50 per foot. From a depth of 30 feet to a depth of 100 feet $9.00 per foot.

5. RATES FOR CASING OF HOLES:
At the rate of $3.00 per foot for each line of casing necessary to a depth of 100 feet, and at the rate of $4.00 per foot for each line of casing necessary thereafter. Upon completion of hole or holes the Contractor shall be at liberty to recover and remove all Standpipe or casing unless purchased by the Company.

6. RATES FOR CEMENTING OF HOLES:
At the rate of $3.00 per foot for placing and drilling of cement.

7. TIME FOR DELAYS:
Any time of delays not the fault of the Contractor shall be paid for at the rate of $7.50 per hour.

8. TYPE OF DRILL TO BE USED:
The Contractor will perform the work by using a Hydrallic feet type drill to give maximum core recovery.

9. The above price includes core boxes and use of aquagel where required to secure core.

A. V. Morehead

A. V. Morehead

PHONE 4741

J. H. BEATTY

DIAMOND DRILL CONTRACTOR
OF METALINE, WASHINGTON

February 13, 1957

Mine Consultants Inc.
Spokane, Washington

BX Core drilling with swivel tube core bbl. and aquagel

$6.25 0' to 100'

$6.50 100' to 200'

$6.75 200' to 300'

This price does not include core boxes.

Henry Beatty

J. H. Beatty

MINE CONSULTANTS INC.
SUITE 525-526 HUTTON BUILDING
SPOKANE 4, WASHINGTON

27 February, 1957

RECEIVED MAR 7 1957		
DATE	INITIALS	CODE

Mr. A. E. Weissenborn, Executive Officer
D.M.E.A. Field Team, Region 1
Northwest District
Room 157 Howard Street
Spokane, Washington

Dear Mr. Weissenborn:

Enclosed please find the balance of the material required for application for D.M.E.A. Exploration Assistance to accompany the five copies of the Geological and Geochemical Report which was transmitted to you over the signature of William D. Weaver, President, on 20 February, 1957.

If there is more material necessary to complete this application we would appreciate being informed at your earliest convenience so that we may transmit it to you immediately.

Very truly yours,

Richard Weaver,
Executive Vice President

RW:md

RECEIVED

MINE CONSULTANTS INC.
SUITE 555-556 HUTTON BUILDING
SPOKANE 4, WASHINGTON

20 February, 1957

OFFICIAL FILE COPY
D M E A
RECEIVED MAR 7 1957

DATE	INITIALS	CODE

Mr. A. E. Weissenborn, Executive Officer
D.M.E.A. Field Team, Region 1,
Northwest District
South 157 Howard Street
Spokane, Washington

Dear Mr. Weissenborn:

Mine Consultants, Inc. is planning to submit an application for a D.M.E.A. loan within a few days on its Blue Mountain Property, Section 10, Township 29 North, Range 38 East, Stevens County, Washington.

You will find attached five (5) copies of the geological and geochemical report which has been prepared to accompany the application.

Sincerly Yours,

William D. Weaver,
President

WDW:md

Attach. 5

DMEA-4671

GEOLOGICAL AND GEOCHEMICAL STUDIES
BLUE MOUNTAIN MINING COMPANY PROPERTY
STEVENS COUNTY, WASHINGTON

BY

FRED O. JONES AND GEORGE B. WEAVER

Official File Copy
Recd. DMEA
Mar. 7, 1957

Code 700

FEBRUARY, 1957

Suppl. Information

(Maps accompanying this suppl. info. are in plastic cover underneath.)

C O N T E N T S

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PLATE 1:	Key Map showing geologic and geographical relationship between areas studied in this report.
PLATE 2:	Geochemical Studies at the Midnite Mine. (In Pocket)
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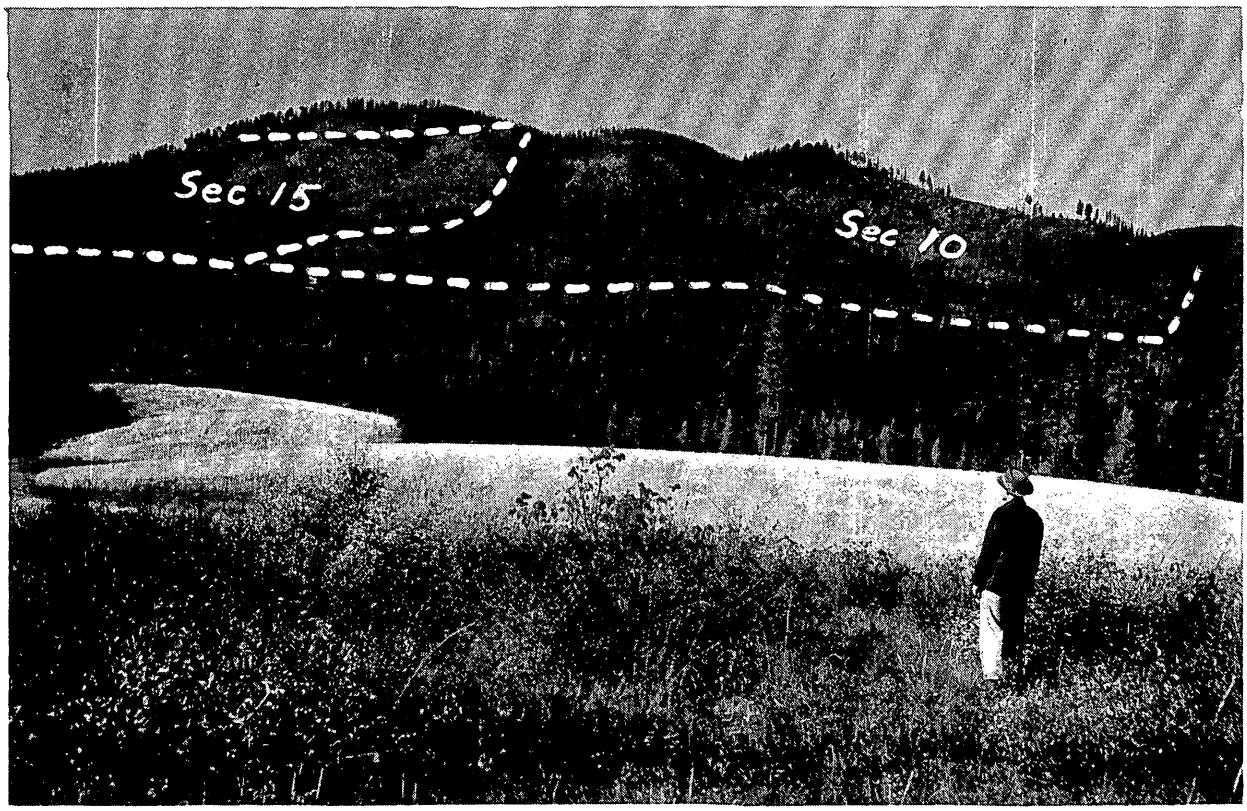


View looking west at Blue Mountain, showing position of Section 10 and 15, Township 29 North, Range 38 East.

INTRODUCTION

The following report summarizes geologic and geochemical studies conducted in search of commercial uranium mineralization on the property of the Blue Mountain Mining Company in Stevens County, Washington. The property consists of all of Section 10, Township 29 North, Range 38 East, lying just north of the Reservation boundary in the Spokane Indian Reservation Uranium District. The field studies were made during the season of 1956 by Fred O. Jones, Consulting Geologist, with the assistance of George D. Weaver. Laboratory analyses were performed by Donald D. Johns and Donald L. Merrick of the Mine Consultants' Laboratory.

SUMMARY OF GEOLOGY AND GEOCHEMICAL RESULTS

Section 10 lies in a broad belt of deformed units of the Deer Trail Argillite formation which has been intruded by a granitic batholith. Erosion subsequent to the intrusion and the elevation of the land mass has resulted in a complex pattern of surface exposures. In some areas outcropping rocks are argillite; in other areas they are granite. It is in a similar contact zone between the argillite and granite rocks that the famous Midnite Mine of the Newmont Mining Company was discovered. The Midnite Mine lies seven miles southwest of the Blue Mountain property. The attached map, Plate No. 1, shows the general geological and geographical relationship of the property to the Midnite. Plate No. 2 shows the general geological relationships in Section 12 where the Midnite Mine is located, and Plate No. 3 shows the general geological relationships in Section 10 of the Blue Mountain Mining Company. The results of geochemical studies as well as the position of the geologic contacts has been plotted for reference and comparison. Section 10 contains approximately one and one-quarter miles of contact similar to that at the Midnite. The close proximity of this similar geologic setting to the large ore bodies at the

Midnite would justify a detailed exploration of this land for uranium mineralization. Surface investigations with the use of scintillation and geiger counters, however, failed to reveal any zones of radioactivity.

It was discovered that soil samples in alluvial dispersion trains downslope from the granite-argillite contact in Section 10 contained significant anomalies of uranium. In order to have a basis for comparison permission was obtained from the Newmont Mining Company to take similar samples in the Midnite Mine area. The following is a comparative summary showing the results from the Midnite and Section 10. Only samples taken in a similar geologic environment are included in this summary, and, as a consequence, it does not include many samples of colluvium shown on the map which were taken for other purposes.

	Total Samples	Percent Showing Anomalies	Average ppm of all samples	Average ppm of samples showing anomalies
Midnite Mine Area	69	62	13	21
Section 10	150	88	37	43

These geochemical anomalies of significant magnitude in Section 10 are considered one of the most favorable showings yet discovered in the Spokane Indian Reservation Uranium District. The fact that the trace mineralization, in every case, lies down hill from the granite-argillite contact suggests that a buried zone of mineralization exists throughout much of the contact length. Additional geochemical and geophysical exploration will be required to trace down the areas of origin of the uranium mineralization. In all probability much of the contact lies at great depth and will need to be explored by deep drilling to determine its potential worth.

To demonstrate the unusual significance of the high soil anomalies on Section 10 there has been included in this report tables and maps of most all of the geochemical work completed in the District during the 1956 field season. The following tables summarize this data.

into a kraft paper wire-top envelope approximately 3" x 5" in size. The sample number was penciled on the envelope, and a wooden stake with the sample number written on it left at the sample station. Because of the expense of time to field personnel, and the variable dampness of the soil, no samples were sieved in the field, but were turned in to the laboratory raw where a laboratory assistant dried the moist samples and sieved them to minus 80 mesh. About three grams of fines from each bulk sample were retained for testing and reference purposes.

LABORATORY PROCEDURES

The procedure employed by the Mine Consultants' laboratory for determination of trace amounts of uranium in soil is basically the paper chromatography method described by Hunt, North and Wells (Analyst, v. 80, p. 172-194) with certain modifications worked out by the United States Geological Survey. Mr. Johns, a graduate chemist of the University of Colorado, received his training in this method at the Denver laboratory of the Geological Survey and, in turn, trained Mr. Merrick. The only variation from the Geological Survey technique was that, due to the high amount of organic material in almost all samples, the amount to be tested from each sample (one gram) was placed in a small crucible and ignited over a bunsen burner for a period of three minutes to allow the organic matter to burn off. Then the samples were placed in the digestion solution and the standard laboratory analysis performed. Unused portions of samples were retained for later re-checking. On the basis of spot rechecks taken in the laboratory by different operators, the laboratory error has been found not to exceed $\pm$ 20 percent.

NOTE ON THE USE OF MAPS

For considerations of space and readability, the results of sampling shown on the maps have not been shown in terms of parts per million, but have been assigned code symbols conforming to standard ranges of values which appear in the

right margin of each map. It should be pointed out that while the code symbols or "classes" of anomalies increase in an arithmetical progression, the range of parts per million which they represent increase in a geometric progression, that is, any given range is twice that of the preceding range. The symbols on the maps are placed in approximately the place where the samples were taken, although since no stations were actually surveyed in, they have been plotted by reference to topographic features and are subject to minor error. In the case of those stations where three or more samples were taken, the symbols have been spread out for ease of reading as previously mentioned. The placement of symbols should not be considered as an accurate plot of sample stations, but rather as a diagrammatic representation of results.

The strike of the contact as shown on the maps (with the exception of the Midnite Mine area) has been inferred from observations made in the field. Throughout most of the area shown, the bedrock is covered with a very heavy soil mantle, and outcroppings of rock in place are rare, so the location was done mostly by examination of float. In the portions of the contact shown by a dashed line, the location of the contact may be in error as much as 300 feet, especially on steep hillsides where there is considerable slumping of mantle rock over the contact, but in the main it may be considered as approximately correct.

DETAILED GEOCHEMICAL RESULTS

The tables which follow are designed to be used in conjunction with the attached maps.

For ease in referring back and forth between tables and maps, new sample numbers have been assigned which conform with the group identifications on the maps. In addition, the code number for the "class" of anomaly used on the maps is included in the table to aid in locating specific samples. The original field sample numbers are also included for laboratory cross-reference. Occasionally it has been necessary to interrupt the tables with explanatory matter.

TABULATION OF SAMPLING RESULTS
IN THE MIDNITE MINE AREA

SECTION 12, T. 28 N., R. 37 E., W.M.

GROUP A

Group A was the first suite of samples taken on the Midnite Mine property, and consisted of a straight-line traverse beginning in the valley to the west, crossing over the mineralized contact in the zone of the so-called "adit orebody," and terminating in the valley to the east. All but two samples of this group were negative. One sample taken directly over the orebody contained 140 ppm and a sample taken approximately 30 feet downslope contained 25 ppm. (Plate 2) (Field sample numbers for this group are JM1 - 1 through 26.)

GROUPS B AND C

Groups B and C were taken from the alluvium of a dry stream at points approximately 500 and 1000 feet below the contact. Along the contact, at a point due west of Group C, is a small open pit which has been excavated preliminary to mining. As a precaution against recent contamination, all samples were taken in undisturbed alluvium at depths of three or four inches.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
B - 1	4	50	MCM 12 F - 1
2	4	35	2
3	3	30	3
4	4	40	4
5	4	50	5
*	*	*	*
C - 1	2	8	6
2	3	30	7
3	1	4	8
4	5	70	9
5	2	10	10

GROUP D

Group D was taken near the head of the valley which drains the west side of the contact area. The stream bed here was dry, but a road embankment across the draw had impounded a small body of water which had apparently come from spring seepage. The samples were taken from undisturbed soil on the east edge of this small pond.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
D - 1	1	5	MCM 12 G - 1
2	1	4	2
3	0	neg	3
4	2	15	4
5	2	15	5

GROUP E

Group E was taken from a draw which heads near the "adit orebody." While the draw was dry at the time of sampling, it apparently carries water in the spring of the year. All samples were taken from alluvial soil in the bottom of the draw.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
E - 1	0	neg	MCM 12 D - 1
2	0	neg	2
3	1	4	3
4	0	neg	4
5	0	neg	5
6	2	6	6
7	0	neg	7
8	0	neg	8
9	0	neg	9
10	0	neg	10

GROUP F

Group F consists of three sets of five samples taken from alluvial soil along the course of an intermittent stream which rises near the orebody on Indian Allotment 156 (the Lucille Boyd Allotment). The stream was not running at the time the samples were taken, but the soil was mucky in the area where the first (lowest) five samples were taken, and there is sufficient subsurface moisture present the year around to support small groves of Quaking Aspen and other plants requiring moisture.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
F - 1	1	5	MCM 12 E - 1
2	1	5	2
3	2	15	3
4	0	neg	4
5	3	25	5
*	*	*	*
6	0	neg	6
7	0	neg	7
8	2	10	8
9	1	5	9
10	2	10	10
*	*	*	*
11	0	neg	11
12	0	neg	12
13	1	5	13
14	2	10	14
15	2	8	15

GROUPS G, H AND J

These three groups were taken from tributaries to the main intermittent stream which drains the east side of the contact. (Plate 2) All samples were taken in alluvial soil.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
G - 1	4	50	MCM 12 A - 1
2	5	70	2
3	3	80	3
4	4	50	4
5	4	60	5
*	*	*	*
H - 1	1	4	MCM 12 B - 1
2	0	neg	2
3	0	neg	3
4	0	neg	4
5	1	4	5
*	*	*	*
J - 1	0	neg	MCM 12 C - 1
2	0	neg	2
3	0	neg	3
4	0	neg	4
5	0	neg	5

SOIL GRID "E"

During the early part of this study, the authors were unaware of the persistent concentration of trace uranium in soil alluviums downstream from uranium orebodies. The discovery of this fact was to materially alter the method and scope of this investigation. At the beginning of the study, knowing of the ready solubility in water of the secondary uranium minerals found in the Spokane area, it had appeared logical to assume that trace uranium in soil exposed to

the flow of stream water would readily leach out and proceed downstream in solution. It was therefore with some surprise that an anomaly was detected in a single random sample taken in the valley which drains through the Midnite Mine area and the side of Soil Grid "E". (See Plate II) A check of the map showed that the nearest orebody (Midnite Mine, "Adit" orebody, Plate II) was a good 1800 feet away, and that a previous traverse across this orebody had shown that traces of uranium in residual soil had persisted only a distance of 60 feet downslope from the mineralized zone. It was apparent that the anomaly was either the expression of a nearer, yet-undiscovered orebody (doubtful), or had traveled 1800 feet and come to rest with the aid of a previously unsuspected concentrating factor (more probable).

In order to obtain further data for puzzling out this anomaly, a 100-sample grid was projected around the first anomaly. (See map) Fifty samples, comprising the west half of the grid, were taken and tested in the laboratory. When the results had been obtained and plotted on the map, it became apparent that the alluvial soil was the controlling factor in the pattern of anomalies. As a double check, three lines of the grid were extended across the stream and up the slope to the east. The negative results of these samples bore out the hypothesis. To test the hypothesis, sample traverses were extended north and south of the grid area as shown on the map, with all samples taken from alluvial soil. As had been expected, some anomalies were found both upstream and downstream from the grid area. The traverse which follows the stream course south was later extended another 2000 feet, but no further anomalies were detected.

DEPTH TESTS

In connection with the study of the anomalies in Grid "E", two groups of depth tests were taken to determine if the anomalies were strictly surficial, if they were the result of recent contamination due to mining activity, or if they decreased or increased in intensity at greater depth below the surface.

As may be seen from the diagrams in the inset, the anomalies do persist to some depth, but on the basis of the limited data from the two tests, no coherent relationship between depth and magnitude of anomalies could be seen. The depth tests did show that the chances of picking up an anomaly are apparently just as good at a depth of three inches as they are at a depth of six feet, which was all that was necessary to know to use the method as a prospecting tool. However, further testing and study of this phenomenon is certainly indicated from the standpoint of scientific investigation.

TABULATION

To save space, the following tabulation of Grid "E" includes only the samples showing anomalies. The letters refer to the designations at the west edge of the grid, and the numbering proceeds from west to east on each line. The total of samples in the grid was 77, of which 9 were anomalous.

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
D - 5	4	D 13 E - 44
E - 5	8	45
EE - 5	8	D 13 D - 9
F - 5	8	D 13 E - 46
G - 4	16	D 13 E - 37
H - 5	8	48
I - 5	16	49
J - 5	8	50
J - 5.5	4	51

The following is a tabulation of the sample traverse which proceeds upstream from the grid pattern:

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
1	15	D 13 F - 1
2	neg	2
3	neg	3
4	neg	4
5	4	5
6	neg	6
7	neg	7

The following is a tabulation of the sample traverse which proceeds downstream from the grid pattern.

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
1	10	D 13 G - 2
2	neg	3
3	neg	4
4	4	5
5	neg	5.5
6	4	6

TABULATION OF SAMPLING RESULTS

ON SECTION 10, T. 29 N., R. 38 E. W. M.

GROUP A

This group includes the first samples taken on Section 10. (Plate 3) The original discovery was made in the draw several hundred feet below the section line. The first sample in Group A is the "4" shown on the map just above the section line, and the samples follow up the draw in sequence. All samples except the two groups taken on either side of the draw, which will be noted later, were taken in alluvial material. There was no water running in the draw at the time the samples were taken, although from the evidence of downcutting, it apparently carries water when the ground water table is high and during the spring runoff.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
A - 1	4	35	U 15 B - 11
2	4	40	12
3	4	40	13
4	2	8	14
5	4	40	15

(At this station, a draw branches to the east. The next six samples were from this branch, and the succeeding two were from the main draw.)

A - 6	2	8	U 15 B - 30
7	3	30	31
8	1	4	32
9	2	15	33
10	1	4	34
11	2	8	35
*	*	*	*
A - 12	4	60	U 15 B - 16
13	3	25	17

(The next six samples were from the draw branching to the west, after which the tabulation returns to the main valley.)

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
A - 14	2	10	U 15 B - 18
15	4	35	25
16	4	40	26
17	4	35	27
18	0	neg	28
19	1	4	29
*	*	*	*
A - 20	4	35	U 15 B - 19
21	4	35	20
22	3	30	21
23	4	50	22
24	4	40	23
25	4	40	24

(At this point the slope steepens markedly and well-developed alluvium gives way to colluvium. For this reason it was decided to spread the sampling at each station so as to increase the chances of picking up values. Accordingly, at each of the next four stations three samples were taken -- one at approximately the center of the basin, the other two on either side at distances varying from 30 to 100 feet from centerline, in spots that appeared to be faint courses for seasonal water runoff.)

A - 26 A	2	12	MC 10 C - 1 A
B	1	4	B
C	2	12	C
27 A	2	8	2 A
B	2	8	B
C	2	8	C
28 A	1	4	3 A
B	3	25	B
C	0	neg	C
29 A	0	neg	4 A
B	2	12	B
C	0	neg	C

Section 10 -Continued

Station 29 was the last group of samples taken working up the draw toward the contact and is the last of Group A except for two groups of samples which were taken at stations perpendicular to the draw and out of the alluvium. The first group is a cross-section at Station A-1. Three samples were taken at stations 30, 40, and 60 feet left of centerline, and 20, 30, 50, and 75 feet right of centerline. All were at elevations above the alluvium, and varied from 6 to 30 feet on the left, and 2 to 20 feet on the right. All samples were negative. The same procedure was followed at Station A-21, and here again all samples were negative. (Field sample numbers for these groups are U 15 C - 0.6 through 22B, and U 15 B - 23 A through T.)

GROUP B

Group B consists of several series of samples taken in an attempt to obtain surface values over and immediately downslope from the granite-argillite contact. The first series was in a traverse along the contact at 25 foot intervals, with cross-sectional samples taken at 25, 50, 75 and 100 feet right and left of the centerline at 100 foot intervals. All samples in this traverse were negative. (Field sample numbers for this traverse are the MC 10 D series, from 0 + 00 at centerline, to 4 + 00 at 100' L.) The second series is a zig-zag traverse downslope from the contact to the head of the draw sampled in Group A. All samples in this traverse were negative. (Field sample numbers for this traverse are the MC 10 A Group from 1 through 15.) A third traverse was run down the center of the basin above the well-defined draw to see if the values present at the last station in Group A could be found to extend farther up the slope. All samples in this traverse were negative except for the last two which were 10 and 25 parts per million respectively. (The field sample numbers for this traverse are the MC 10 E Group from 1 through 22.)

GROUP C

Group C is a series of alluvial samples taken from a southeasterly trending intermittent stream valley which drains the contact area. At the time the samples were taken, the stream was dry except for several small stagnant pools at the lower end. Group C, like Group A, follows up anomalies discovered further downstream, out of the map area. The first sample in the traverse is the farthest sample downstream on the map, and the sampling proceeds upstream from that station. The sampling was discontinued at Station C - 7 where a break in the slope and resulting loss of a distinguishable alluvium occurred.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
C - 1 A	5	100	MC 10 G - 1 A
B	4	50	B
C	5	70	C
2 A	0	neg	2 A
B	1	4	B
C	6	200	C
3 A	6	150	3 A
B	5	120	B
C	5	90	C
4 A	5	100	4 A
B	5	80	B
C	4	60	C
5 A	4	35	5 A
B	3	30	B
C	4	45	C
6 A	4	50	6 A
B	4	40	B
C	4	45	C
7 A	4	40	7 A
B	4	55	B
C	4	60	C

GROUP D

Groups D, E, G, H and J represent a reconnaissance of alluvial trains descending from the northern extension of the contact in Section 10. Group D consisted of a series of five samples taken in a small spring embayment where a steep hill in the northeast quarter of the map area flattens into a broad terrace which forms the south bank of Camas Creek (just out of the map area at the northeast corner).

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
D - 1	2	10	U 3 J - 1
2	1	5	2
3	1	5	3
4	0	neg	4
5	0	neg	5

GROUP E

Group E consisted of a series of ten samples, nine of which were from the valley of a northeasterly trending intermittent stream which drains the contact area. The stream was dry at the time the samples were taken. The tenth sample (No. E - 6) was taken from a cut bank about four feet above the stream bed.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
E - 1	3	30	U 3 K - 1
2	3	25	2
3	3	20	3
4	3	25	4
5	4	35	5
6	0	neg	6
7	3	30	7
8	4	40	8
9	4	60	9
10	2	15	10

GROUP G

Group G consisted of a series of ten random samples taken from the alluvium of an intermittent stream at the point where it crosses the access road - - several hundred yards out of the map area to the east. The stream was dry at the time the samples were taken.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
F - 1	4	50	MC 10 F - 1
2	2	15	2
3	3	20	3
4	3	30	4
5	3	30	5
6	3	30	6
7	3	20	7
8	6	180	8
9	3	30	9
10	6	200	10

GROUP H

After receiving the encouraging results from Groups E and G, it was decided to continue sampling these two draws farther upstream. Groups H and J consisted of these two suites of samples. In Group H the draw and alluvial deposit once again lost definition at higher elevation, and the last four stations represent sampling of several of the faint tributaries in an attempt to pick up further anomalies. Three samples were taken at each station.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
H - 1 A	3	30	MC 10 F - 11 A
B	5	80	B
C	6	150	C
2 A	4	50	12 A
B	5	100	B
C	4	35	C

Section 10 - Continued

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
H - 3 A	4	50	MC 10 F - 13 A
B	0	neg	B
C	3	30	C
4 A	3	25	14 A L
B	3	30	B L
C	3	25	C L
5 A	2	10	14 A R
B	3	20	B R
C	3	20	C R
6 A	4	55	15 A R
B	4	40	B R
C	3	30	C R
7 A	0	neg	15 A L
B	0	neg	B L
C	0	neg	C L
8 A	0	neg	16 A
B	0	neg	B
C	0	neg	C
9 A	0	neg	17 A
B	0	neg	B
C	0	neg	C

GROUP J

Group J represents further sampling of the anomalous drainage picked up in Group E. The technique followed was the same employed in Group H. The sampling was ended because the drainage began to lose definition at the high elevation, but the strength of the last anomalies indicates that this drainage should be sampled further.

Section 10 - Continued

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
J - 1 A	6	150	MC 10 K - 11 A
B	3	30	B
C	3	20	C
2 A	4	40	12 A
B	4	50	B
C	4	40	C
3 A	5	90	13 A
B	4	40	B
C	5	120	C
4 A	4	35	14 A
B	5	70	B
C	5	70	C

TABULATION OF SAMPLING RESULTS

ON SECTION 15, T. 29 N., R. 38 E. W. M.

GROUP A

The original discovery of geochemical anomalies in this area was made at the beginning of Group A. Four samples were taken from each of two dry streambeds just above their confluence. The first four samples taken in valley "A" (see map) have been lumped under one symbol to avoid crowding on the map. The following are the results of the discovery samples in this valley:

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
A - 1 A	0	neg	U 15 B - 1
B	3	25	2
C	1	4	3
D	0	neg	4

The next six samples follow in order up the valley to the section line.

A - 2	0	neg	U 15 B - 5
3	3	30	6
4	1	4	7
5	4	40	8
6	3	25	9
7	3	30	10

GROUP B

Group B represents the tracing of values up the west branch of the valley. As in Group A, the first four discovery samples have been lumped under one symbol. The valley sampled in Group B was more nearly an intermittent stream, with pools of standing water in some places. All samples, with one exception to be noted, were taken from alluvial soil on or quite near the banks of the stream. The following are the first four samples, which are represented on the map by the lowest symbol "1".

Section 15 - Continued

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
B - 1 A	1	4	U 15 A - 1
B	0	neg	2
C	0	neg	3
D	2	12	4

(The samples which follow are a continuation upstream from the first samples in this series.)

B - 2	2	10	U 15 A - 5
3	4	35	6
4	3	25	7
5	3	20	8
6	3	30	9
7	4	35	11
8	3	30	12
9	0	neg	13

(Sample No. 9 was taken in alluvial soil, but at a distance of approximately thirty feet from the stream bed.)

B- 10	2	15	U 15 A- 14
11	2	8	15
12	2	8	16
13	0	neg	17
14	3	25	18

Throughout the rest of Group B, three samples were taken at each station in the manner previously described.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
B- 15 A	1	4	U 15 A - 21
B	2	8	A
C	4	50	B
B- 16 A	6	150	U 15 A - 22
B	0	neg	A
C	1	4	B

Section 15 - Continued

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
B - 17 A	4	50	U 15 A - 23
B	2	12	A
C	1	4	B
B - 18 A	3	30	U 15 A - 24
B	3	25	A
C	4	60	B
B - 19 A	2	12	U 15 A - 25
B	3	30	A
C	0	neg	B

Since the valley continued at grade for another two thousand feet, it was de-decided to skip ahead and sample the area nearer the contact where the grade steepened. Experience in other valleys had shown that the cutoff point in anomalies usually occurred near that point. Therefore the next samples were taken approximately 1600 feet west of Station B - 19.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
B - 20 A	5	100	U 15 A - 30 A
B	3	20	B
C	5	120	C
B - 21 A	4	60	31 A
B	3	25	B
C	4	50	C
B - 22 A	3	25	32 A
B	6	220	B
C	5	120	C
B - 23 A	3	30	33 A
B	2	15	B
C	1	5	C
B - 24 A	2	15	34 A
B	1	5	B
C	3	20	C

Section 15 - Continued

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
B - 25 A	4	50	U 15 A - 35 A
B	4	60	B
C	5	100	C
B - 26 A	2	15	36 A
B	2	15	B
C	2	8	C
B - 27 A	1	4	37 A
B	1	4	B
C	1	4	C
B - 28 A	0	neg	38 A
B	1	4	B
C	0	neg	C
B - 29 A	1	4	39 A
B	1	4	B
C	2	8	C

GROUP C

Group C is a series of samples taken from the alluvium of a small intermittent stream which joins the Group B drainage at Station B - 16.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
C - 1	0	neg	U 15 A - 19
2	0	neg	20
3 A	0	neg	26
B	1	4	A
C	2	8	B
4 A	2	12	27
B	2	15	A
C	1	6	B
5 A	2	12	28
B	0	neg	A
C	0	neg	B

GROUP D

Having met with success in the first valley sampled, it was decided to make a quick geochemical reconnaissance of the other valleys in the section to see if values could be discovered which would point out favorable areas for prospecting. To accomplish this, samples were taken from each promising looking small draw or dry wash in the section at the point where they cross the road. (See Plate 4) At first just one sample was taken from each draw, but this was later expanded to a total of ten samples to increase the chances of picking up values. Group D - 1 were all negative (Field Nos. U 15 D - 2 through 2 I.) Group D - 2 were negative except for one anomaly of 4 ppm. (Field Nos. U 15 D - 3 through 3 I.) Group D - 3 were negative except for three anomalies of 4, 4 and 8 ppm. (Field Nos. U 15 D - 4 through 4 I.) Group D - 4 was taken in a valley where the drainage from a small year-round spring crosses the road.

D - 4

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
D - 4 A	2	15	U 15 D - 5
B	4	50	5 A
C	0	neg	B
D	0	neg	C
E	0	neg	D
F	0	neg	E
G	2	15	F
H	4	60	G
I	2	15	H
J	1	6	I

Group D - 5 was taken from a fairly well-defined dry stream bed.

D - 5

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
D - 5 A	1	4	U 15 D - 6
B	0	neg	6 A
C	4	35	B
D	0	neg	C
E	6	160	D
F	6	160	E
G	3	25	F
H	2	8	G
I	5	120	H
J	5	110	H
K	5	90	I

Group D - 6 was taken in a broad dry wash which appeared to carry water during the spring runoff.

D - 6

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
D - 6 A	0	neg	U 15 D - 7
B	0	neg	7 A
C	2	8	B
D	0	neg	C
E	0	neg	D
F	0	neg	E
G	2	8	F
H	1	4	G
I	1	4	H
J	1	4	I

After the laboratory results had been obtained, they were analyzed to see which members of the D group appeared the most promising. D - 1 and D - 2 were discarded because of almost completely negative results and because they appeared to be subsidiary draws which came down from the easterly trending ridge rather than from the contact area. D - 4, although showing some good anomalies, was temporarily set aside because it too came down from a subsidiary ridge.

Section 15 - Continued

D - 6 didn't present much further opportunity for alluvial sampling because it was sampled practically at its head. This left D - 5 as the best bet for prospecting, with D - 3 as a second choice. Accordingly, Groups F and J were taken.

GROUP F

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
F - 1 A	4	35	U 15 F - 1 A
B	3	25	B
C	4	50	C
2 A	2	8	2 A
B	1	6	B
C	2	8	C
3 A	4	55	3 A
B	4	35	B
C	4	60	C
4 A	4	40	4 A
B	4	40	B
C	4	60	C

(At this point the draw divides. The next four stations are from the branch to the west, and the last three from the branch to the east.)

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
F - 5 A	3	25	U 15 F - 5 A
B	3	30	B
C	2	12	C
6 A	4	50	6 A
B	4	50	B
C	3	30	C
7 A	3	25	7 A
B	2	8	B
C	3	20	C
8 A	1	6	8 A
B	1	4	B
C	1	6	C
*	*	*	*

Section 15 - Continued

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
F - 9 A	4	60	U 15 F - 11 A
B	5	100	B
C	4	50	C
10 A	3	30	10 A
B	2	10	B
C	3	30	C
11 A	3	20	9 A
B	3	30	B
C	4	40	C

GROUP J

Group J was taken from a small intermittent stream. The traverse was begun at the east end and proceeds west. Generally speaking, the lower anomalies were taken from that portion of the stream which was dry, and the higher values from portions of the stream that have moisture present the year around. The spectacular anomalies obtained at Stations J - 12 and J - 15 were from the rich organic muck of a year-round spring seepage.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
J - 1 A	5	100	U 15 J - 1 A
B	5	100	B
C	6	140	C
2 A	5	100	2 A
B	5	100	B
C	5	100	C
3 A	3	30	3 A
B	4	60	B
C	5	120	C
4 A	5	100	4 A
B	6	200	B
C	6	140	C

Section 15 - Continued

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
J - 5 A	5	120	U 15 J - 5 A
B	4	55	B
C	5	120	C
6 A	4	40	6 A
B	5	70	B
C	3	30	C
7 A	6	140	7 A
B	5	100	B
C	6	220	C

(At Station J - 8, samples A, B and C were taken from alluvium in the valley bottom, samples D and E were taken of the colluvium on the adjacent south slope, and samples F and G were taken out of the colluvium on the adjacent north slope.)

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
J - 8 A	7	300	U 15 J - 8 A
B	7	260	B
C	6	220	C
D	0	neg	D
E	0	neg	E
F	0	neg	F
G	0	neg	G
9 A	6	200	9 A
B	6	200	B
C	6	220	C
10 A	6	160	10 A
B	7	260	B
C	6	200	C
11 A	6	180	11 A
B	5	70	B
C	6	130	C
12 A	7	400	12 A
B	7	300	B
C	7	500	C

Section 15 - Continued

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
J - 13 A	2	8	U 15 J - 13 A
B	0	neg	B
C	0	neg	C
14 A	2	8	14 A
B	2	15	B
C	1	4	C
15 A	6	200	15 A
B	6	180	B
C	6	220	C

GROUP K

During the course of exploration of Section 15, a high-level spring area was discovered along the north section line, not too far below the contact. A series of samples was taken in this area. Samples K - 1 (A through C) were taken in dry soil above the spring area, and samples K - 2 (A through C) and K - 3 (A through E) were taken in and just below the spring area.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
K - 1 A	0	neg	U 15 X - 1 A
B	0	neg	B
C	0	neg	C
2 A	3	25	2 A
B	2	15	B
C	3	20	C
3 A	2	10	3 A
B	2	15	B
C	2	15	C
D	2	10	D
E	2	10	E

GROUP L

The samples in Group L were taken in an attempt to find how far and how intensely the train of anomalies found in Groups A, B and C would persist downstream. The traverse was begun at the road and continued down the valley. The

rise in values at the last station in this series may be due to the fact that these samples were taken where small pools indicated that ground water emerges the year around. The other samples were taken in dry alluvium.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
L - 1 A	0	neg	U 15 D - 1
B	0	neg	U 15 E - 1 A
C	0	neg	B
D	1	4	B
2 A	3	30	2 A
B	2	8	B
C	0	neg	C
3 A	4	50	3 A
B	0	neg	B
C	2	15	C
4 A	0	neg	4 A
B	0	neg	B
C	3	30	C
5 A	3	25	5 A
B	3	20	B
C	3	25	C

GROUP M

Group M consists of two traverses below and over the contact between the granite and the small exposure of argillite in the northeast quarter of Section 15. As may be seen on the map, the results of both these traverses were negative. (Field sample numbers for these traverses are U 15 A - 7 (A through K) and U 15 - 1 through 12.)

TABULATION OF SAMPLING RESULTS

IN EXPLORATION AREA "B"

Area "B" lies approximately one mile northeast of Section 10 and consists of approximately 12,000 feet of the same granite-argillite contact that exists in sections 10 and 15. The geologic setting appears to be identical with that explored in the two other sections. In July of 1956 Mine Consultants was granted permission by the holders of the State leases in Sections 2 and 36 (see map) to perform a reconnaissance sampling to determine if the company would be interested in taking over the leases. The sample groups tabulated below are the results of that reconnaissance sampling.

GROUP A

Group A consisted of ten samples taken from the alluvium of a dry stream bed which drains the contact area in the north half of Section 36 (see map). All samples in this group were negative. (Field sample numbers for this group are MCG 36 A - 1 through 10.)

GROUP B

Group B is a suite of ten alluvial samples taken from the marshy borders of a small intermittent stream which drains the contact area in the south half of Section 36. (See map).

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
B - 1	0	neg	MCG 36 B - 1
2	1	4	2
3	2	8	3
4	2	12	4
5	2	12	5
6	2	8	6
7	1	4	7
8	0	neg	8
9	2	8	9
10	0	neg	10

GROUP C

Group C consists of a suite of five alluvial samples taken from the banks and bed of a dry intermittent stream which drains from northwest to southeast through Section 2. (See map) All samples in this group were negative. (Field sample numbers: MCG 2 A - 1 through 5.)

GROUP D

Group D consists of five alluvial samples taken from the banks of an intermittent stream which drains across the contact near the line between Sections 35 and 2. Three of the samples were taken from the silt behind an abandoned beaver dam; the other two were taken from the banks of the dry stream. All samples were negative. (Field sample numbers: MCG 2 B - 1 through 5.)

GROUP E

Group E is a suite of five alluvial samples taken from a draw which originates in the contact area in the northeast quarter of Section 2. (See map) The draw was completely dry at the time the samples were taken, but showed evidence of carrying a certain amount of ground water during periods when the ground water table is high.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
E - 1	1	4	MCG 2 C - 1
2	0	neg	2
3	2	8	3
4	2	14	4
5	2	12	5

GROUP F

Group F was taken from the marshy banks of an intermittent stream which drains across the contact through Sections 35 and 2. These five samples were purposely taken on the argillite side of the contact to check for possible contamination from traces originating farther upstream. As all samples from this stream were negative, this proved to be an unnecessary precaution. (Field sample numbers: MPD 35 A - 1 through 5.)

GROUP G

Group G is a series of five samples taken from the alluvium of a small northeast-trending draw along the line between Sections 2 and 35. All samples were negative. (Field sample numbers: MCG 2 D - 1 through 5.)

GROUP H

Group H was taken from the alluvium of a subsidiary draw which crosses the contact near the north line of Section 2. All five samples were negative. (Field sample numbers: MCG 2 E - 1 through 5.)

GROUP J

Group J consists of a suite of five alluvial samples taken from the bottom of a small draw which crosses the contact in the north half of Section 2. All samples in this group were negative. (Field sample numbers: MCG 2 F - 1 through 5.)

GROUP K

Group K was taken up near the contact zone in the alluvium of the same draw sampled in Group E. The contact in this area had been opened in several places by the lease holders during the previous field season. The negative results here are thought to be the result of sampling above the point in the draw where the ground water emerges. (Field sample numbers: MCG 2 C - 6 through 10.)

GROUP L

Group L consists of a suite of ten alluvial samples taken from a valley which trends southeast from the contact zone through Section 1. The valley was dry at the time of sampling but apparently carries water during the spring of the year.

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
L - 1	0	neg	MCG 2 G - 1
2	0	neg	2
3	0	neg	3
4	0	neg	4

SAMPLE NO.	CLASS	URANIUM ppm	FIELD SAMPLE NO.
L - 5	0	neg	MCG 2 G - 5
6	2	10	6
7	1	5	7
8	0	neg	8
9	0	neg	9
10	1	5	10

TABULATION OF SAMPLING RESULTS
ON DAHL URANIUM MINE, INC., PERMIT AREA B
SECTIONS 24 & 25, T. 29 N., R 37 E., and
SECTIONS 19 & 30, T. 29 N., R. 38 E., W.M.

The sampling on Dahl Uranium Mine, Inc., Permit Area B, represents the most intensive sampling of a single contact area during the field season of 1956. The sampling program was laid out and supervised by Fred Jones of Mine Consultants, and the sampling was done by personnel of Dahl Uranium Mine, Inc. While most of the samples were taken in colluvial or residual soil, the alluviums of draws and minor stream valleys were sampled where they crossed the previously-determined grid pattern.

During geological reconnaissance of the area, a zone of brecciated rock was discovered along the ridge in the west side of Section 25. (See map) The rock consisted of recemented fragments of both granite and sediments and on the chance that this might be a favorable host for uranium mineralization, the grid was extended uphill to cover part of this zone. The results of these samples, plus all other samples taken in the program on this block of ground, were negative.

The total of samples in this study, all negative, was nine hundred ninety-three (993).

TABULATION OF SOIL SAMPLES FROM VARIOUS LOCATIONS, SPOKANE INDIAN RESERVATION AREA

This section of the report contains tabulations of results on miscellaneous soil sampling of a reconnaissance nature in various locations in the Spokane Indian Reservation area. The results have been arranged in two groups according to the general geological environment. Group A contains alluvial samples taken from draws and valleys which cut through only members of the Deer Trail argillites. Group B lists samples taken in alluvium and residual soils in or below contact zones. The position of each sample group tabulated below is shown on Plate 7.

GROUP A

Group A consists of a preliminary reconnaissance of Sections 3, 5, 9, 17, and a fraction of Section 20, Township 29 North, Range 38 East, Willamette Meridian, for the account of Universal Mining Corporation. All samples were taken from alluvial soil in the approximate locations indicated on the map. (Plate 7)

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
A - 1 A	neg	MCAL - A - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5
A - 2 A	neg	MCAL - B - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5
A - 3 A	neg	MCAL - B - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
A - 4 A	neg	UAL - D - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5
A - 5 A	neg	U 20 B - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5
A - 6 A	neg	U 20 A - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5

GROUP B

Group B represents the results of miscellaneous sampling, alluvial and otherwise, in the vicinity of granite contacts, which have proved to be a localizing factor for other uranium deposits in the area.

Group B - 1 consists of two sample traverses in residual and colluvial soil along the granite-argillite contact in Section 3, Township 29 North, Range 38 East. (Plate 7) As arranged below, sample B - 1 A begins on the contact just out of the alluvium on the north side of the stream, and sample B - 1 W ends the traverse at the tip of the ridge, approximately half way through the section.

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
B - 1 A	neg	U 3 A - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5
F	neg	6
G	neg	7
H	neg	8
I	neg	9
J	neg	10
K	neg	11
L	neg	12
M	neg	13

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
B - 1 N	neg	U 3 - 10
O	neg	9
P	neg	8
Q	neg	7
R	neg	6
S	neg	5
T	neg	4
U	neg	3
V	neg	2
W	neg	1

At the edge of Section 3 (just off the map area to the east) a ridge of granite trending approximately north and south is unconformably capped by a conglomerate consisting principally of well-rounded pebbles of the Deer Trail series, in a red-to-yellow ferruginous matrix. Group B - 2 is a series of samples downslope from the contact between this outlier of conglomerate and the underlying granite.

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
B - 2 A	neg	U 3 B - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5
F	neg	6
G	neg	7
H	neg	8
I	neg	9
J	neg	10
K	neg	11
L	neg	12
M	neg	13
N	neg	14
O	neg	15

Group B - 3 consists of a reconnaissance sampling of the alluvium of a small intermittent stream which drains approximately south through the eastern half half of Section 3, joining Camas Creek near the south boundary of the section. The first ten samples were taken near the mouth of the stream, the next three about halfway through the section, and the last seven approximately one thousand feet below the north section line.

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
B - 3 A	neg	U 3 G - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5
F	neg	6
G	neg	7
H	neg	8
I	neg	9
J	neg	10
B - 3 K	neg	U 3 D - 1
L	neg	2
M	neg	3
B - 3 N	neg	U 3 C - 1
O	neg	2
P	neg	3
Q	neg	4
R	neg	5
S	neg	6
T	neg	7

Group B - 4 was taken in residual soil where the contact crosses a logging road in the fraction of Section 21 just north of the Reservation boundary. (Plate 7)

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
B - 4 A	neg	U 21 - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5

Group B - 5 was taken in alluvial soil from a small year-round stream which drains a granite-argillite contact at several points. (Plate 7) As may be seen from the table of results, some anomalies were discovered, but since the samples were not processed in the laboratory until after the close of the field season, there was no opportunity to pursue the train of anomalies farther upstream.

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
B - 5 A	neg	U 18 A - 1
B	neg	2
C	30	3
D	4	4
E	15	5

Group B - 6 consists of a sample traverse, in residual and colluvial soil, parallel to and approximately 200 feet downslope from a granite-argillite contact which passes through Section 35, Township 29 North, Range 37 East, W.M. (See Plate 7) One sample was taken at each of 41 stations placed approximately 150 feet apart. Forty-one samples were taken, and all samples were negative. (Field sample numbers: L 35 - 1 through 41.)

Groups B - 7, B - 8, B - 9 and B - 10 were taken below contact zones known to be abnormally radioactive, and where secondary uranium mineralization has been reported in some places in the contact. Group B - 7 was taken in a shallow draw draining a stretch of contact near where the Reservation boundary intersects the west line of Section 21, Township 29 North, Range 38 East, W. M. The contact above where the samples were taken had been bulldozed open and several percussion exploration holes drilled.

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
B - 7 A	neg	MCW 21 A - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5

Group B - 8 consists of a group of 5 alluvial samples taken at the mouth of a southwesterly-trending gully which drains the isolated peak in the NW 1/4 of Section 21, Township 29 North, Range 38 East. Considerable exploration had been accomplished along the contact zone on this peak, including several hundred feet of bulldozing and a dozen or so percussion drill holes. What the results of the program were, the authors were unable to determine, since no one could be found on the property at the time the sampling was conducted.

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
B - 8 A	neg	MCW 21 B - 1
B	neg	2
C	neg	3
D	neg	4
E	neg	5

Group B - 9 consists of a group of 5 alluvial samples taken from the westerly-trending stream which drains between the two isolated peaks in the W 1/2 of Section 21, Township 29 North, Range 38 East. (See Plate 7)

SAMPLE NO.	URANIUM ppm	FIELD SAMPLE NO.
B - 9 A	neg	MCW 21 C - 1
B	neg	2
C	neg	3
D	neg	4
E	4	5

Group B - 10 consists of a group of 5 alluvial samples taken near the mouth of the westerly-trending gully which drains the isolated, argillite-capped peak in Sections 21 and 28, Township 29 North, Range 38 East, W.M. (See Plate 7) The samples were taken in marshy soil near small springs. All samples were negative. (Field numbers: MCW 28 A - 1 through 5.)

Group B - 11 consists of a traverse along the north bank of Blue Creek in the South 1/2 of Section 13, Township 28 North, Range 37 East. (See Plate 7) Samples were taken in colluvial soil except where the traverse crossed subsidiary draws and gullys. A total of twenty-five samples were taken and all samples were negative. (Field numbers: D 13 A - 1 through 15, and D 13 B - 1 through 9.)

Group B - 12 consists of samples taken from residual soil in the contact zone in bulldozer cuts in the Northeast 1/4 of Section 13. (See Plate 7) Six samples were taken, and of these five were negative. The one anomalous sample (12 ppm) was taken directly over a previously known weakly mineralized area. (Field sample numbers: D 13 C - 1 through 5.)

Group B - 12 consists of a traverse from east to west on a line approximately 100 feet south of the section line. (See Plate 7.) Eight negative samples were taken, and the ninth sample, an anomaly of 8 ppm, forms the center of Soil grid "E" (see separate sheet). (Field sample numbers: D 13 D - 1 through 9.)

PROPOSED PROGRAM OF EXPLORATION

Geological and geochemical data indicate that the target zone for uranium mineralization lies along the contact between the Deer Trail argillite formation and the granite. If analogy can be drawn from the similar contact at the Mid-nite Mine, any significant mineralization or ore bodies are most likely to be found in the schists of the Deer Trail formation along the contact.

Consequently a program is proposed which would explore what is considered the most favorable part of the contact in Section 10. The program is shown on Plate 8. The program proposes 9 bulldozer trenches to uncover and locate the contact and to determine, if possible, its general attitude; 28 drill holes spaced at 100 foot intervals along the contact on the argillite side; and 4 cross sections of the contact zone with 16 holes spaced at 100 foot intervals as shown on the map.

A study of the elevation difference between the estimated position of the contact and the elevation of the highest geochemical anomalies suggests that mineralization along the contact probably does not lie at depths greater than 100 to 300 feet. Some of the test holes will be shallow and some will be deep, but it is judged that an average depth of 200 feet will provide adequate data relating to the presence or absence of mineralization.

It is recognized that the uranium picked up in the soil samples in the alluvial dispersion trains may not have come from the target zone described along the granite-argillite contact. The traces of uranium may have been derived from a quite different geologic occurrence and from an entirely different structure than that presently visualized. The fact remains, however, that the anomalies are of significant magnitude and of persistent distribution. If mineralization is not encountered as anticipated along the contact, the program should be adequately flexible to try to determine its source.

SUMMARY OF RECOMMENDED EXPLORATION PROGRAM

1. 44 Diamond Core drill holes: Average Depth 200 feet (EX size) Hydraulic feed drill - Total footage 8,800 feet.
2. Nine bulldozer trenches: Average length 250 feet - average depth 6 feet.
3. Trail along contact and access road to contact area.

Respectfully submitted,

Fred O. Jones

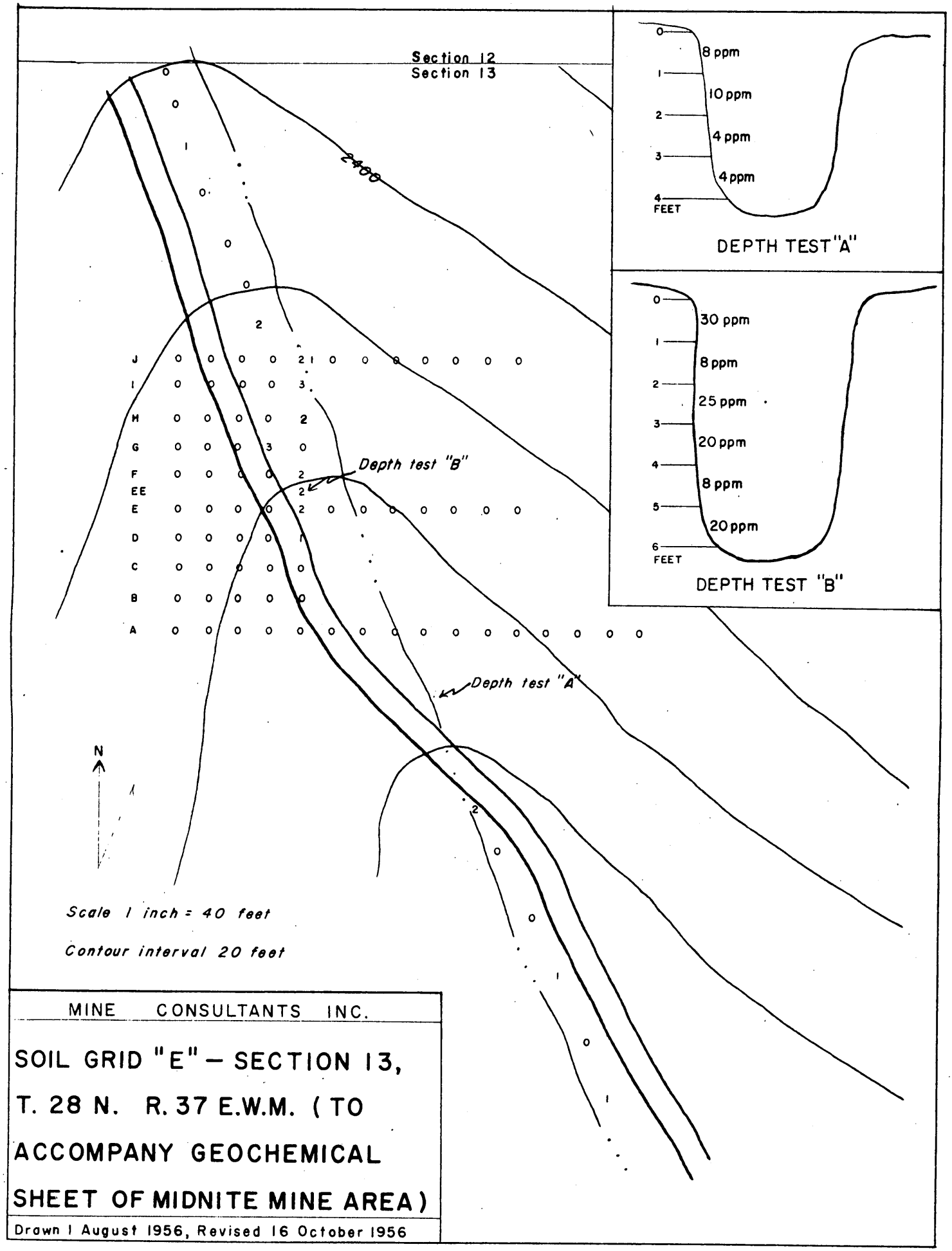
FRED O. JONES, CONSULTING GEOLOGIST

George B. Weaver

GEORGE B. WEAVER

MINE CONSULTANTS, INC.
528 HUTTON BUILDING
SPOKANE 4, WASHINGTON

FEBRUARY 15, 1957



MINE CONSULTANTS INC.

SOIL GRID "E" — SECTION 13, T. 28 N. R. 37 E.W.M. (TO ACCOMPANY GEOCHEMICAL SHEET OF MIDNITE MINE AREA)

Drawn 1 August 1956, Revised 16 October 1956

DMEA Form 17
Feb. 58

DEFENSE MINERALS EXPLORATION ADMINISTRATION

M

WORK COMPLETED ANALYSIS

After final audit or review report is received, prepare original only and file in official docket

Operator **Geo-Resource Corporation**		Actual Cost	X
State **Washington**		Agreed Unit Cost	
Final Report of Audit	X	Commodity *Uranium*	Docket No. **DMEA-4671**
Final Report of Review	X		Contract No. **Idm-E1114**

Operation	Authorized by Contract and Amendments		Completed		Net cost after sale of Government Property
	Units	Cost	Units	Cost	
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) *Core not less than AX size*	*5,700'*	*46,577.72*	*1261.5'*	*11,996.67*	*11996.67*
Surface Excavation - *Trenches*		*2100.00*		*1,342.40*	*1,342.40*
Underground Excavation					
Roads and Trails *Bulldozing*		*2645.00*		*1745.00*	*1745.00*
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) *Analysis U3O8 @$5/sample*		*2650.00*		—	
Totals		*$53,972.72* ‖		*$15,084.07*	*$15,084.07* *

* Net cost total must agree with final report of audit or review.

Pseudo-certification in Termination agreement 7/11/58

Prepared by *[signature]* Date *11/12/58*

(Complete)

‖ *Increased over Contract by Amendment No. 1*

31398

Docket copy

Knowne

Project Summary Report

By: F. M. Murphy March 12, 1958

1. Docket No. DMEA-4671 (Uranium)
Contract No. Idm-E1114

Operator - Geo-Resource Corporation
Suite 525-528 Hutton Bldg.,
Spokane 4, Washington

Operator's Property Rights -

Lessee of all of secs. 10 and 15, T. 29 N., R. 38 E., W. M., Stevens County, Washington.

Sec. 10, which is state reverted land, was leased by 8 individuals to Grandview Mines, who, in turn, assigned its rights to the Operator. All assignors signed Consents to Lien and Subordination Agreements. The Government waived the State of Washington's consent.

No work done on this section. FMM.

Sec. 15, added under Amendment No. 2, is owned by Universal Mining Corp., who also signed a Consent to Lien and Subordination Agreement.

2. Contract, dated July 24, 1957.

Amendments -

No. 1, November 27, 1957, changes drill site locations to spaces of not less than 200 or more than 300 feet apart. Allows one vertical hole (D.DH-2) on granite side of contact, others to intersect contact at about 200-foot depth.

No. 2, adds sec. 15 to contract and increases contract by adding Stage III to explore the section. Also allows recess period from November 30, 1957, to April 15, 1958.

Termination Agreement, dated July 11, 1958, contains a pseudo certification.

Work Authorized -

Work under the contract started July 31, 1957, and was discontinued on November 28, 1957.

(See next page for Work Authorized.)

Work Authorized -

Stage I - Bulldoze 7 trenches and drill 18 holes, totaling 3,000 feet of core drilling. Total cost Stage I - $28,403.92

Stage II - Core drilling 2,000 feet. Total cost Stage II - $17,554.20

Stage III- Bulldoze 2 trenches and core drill 700 feet. Total cost Stage III - $8,014.60

Estimated Cost of Project

	Units of work	Unit Cost	Total Cost
Bulldozer Work -			
Access roads	60 hrs.	$17.50/hr.	$ 1,050.00
Trenching	120 hrs.	$17.50/hr.	2,100.00
Drill site preparation	74 hrs.	$17.50/hr.	1,295.00
Transporting dozer	300 miles	$1.00/mile	300.00
Diamond drilling -			
Core drilling	5,700 feet	$6.00/ft.	34,200.00
Driving standpipe	260 feet	$7.50/ft.	1,950.00
Cementing and redrilling or reamining and casing	220 feet	$3.00/ft.	660.00
Standby time	60 hrs.	$7.50/hr.	450.00
Supervision	8½ mos.	$600/mo.	5,100.00
Consulting geologist	41 days	$50.00/day*	2,200.00
Core boxes	520	$1.00 each	520.00
Sample sacks	530	$0.35 each	185.50
Gasoline	625 gal.	$0.36/gal.	225.00
Equipment depreciation	8½ mos.	$33.33/mo.	283.32
Payroll taxes	14.9% of $5100.00		759.90
Chemical analyses U_3O_8	530	$5.00 each	2,650.00
plus transport	-	-	44.00
Total Estimated Cost of Project (rounded)			$53,972.00
Government Participation @ 75%			$40,480.00

* Stage III - $75/day

2. Contract (continued)

Work Completed -

Seven (7) trenches and 7 diamond drill holes in Stage I.

Accepted Units of Work and Costs:

	Units	Unit Cost	Total Cost
Bulldozer work:			
Access roads	60 hrs.	$17.50/hr.	$ 1,050.00
Trenching	80 hrs.	$17.50/hr.	1,400.00
Drill site preparation	34 hrs.	$17.50/hr.	595.00
Transporting dozer	100 miles	$1.00/mi.	100.00
Diamond drilling:			
Core drilling	1,261.5 ft.	$6.00/ft.	7,569.00
Driving standpipe	100 ft.	$7.50/ft.	750.00
Cementing and redrilling or reaming and casing	100 ft.	$3.00/ft.	300.00
Standby time	24 hrs.	$7.50/ft.	180.00
Supervision	4 mos.	$600.00/mo.	2,400.00
Consulting geologist	8-7/8 days	$50.00/day	443.75
Core boxes	55	$1.00 each	55.00
Gasoline	300 gal.	$0.36/gal.	108.00
Jeep depreciation	4 mos.	$33.33/mo.	133.32
		Total	$15,084.07

Final Reports -

Operator's final report received October 6, 1958.
Field Team's final report received December 5, 1958.

3. Audit Report of Review, dated November 6, 1958, by George Mavor:

Total Cost as billed by Operator	$15,441.67
Exceptions by auditor	357.60*
Total Accepted Cost	$15,084.07
Government Participation @ 75%	$11,313.05

* Operator had not paid payroll taxes.

4. Certification - Termination Agreement contains a pseudo certification.

5. Comments -

Excerpts from Joint Final Geolgic and Engineering Report by Eric G. Erickson, USBM, and Howard F. Albee, USGS:

The object of the project was to explore for uranium ore deposits in a northeasterly-trending Loon Lake granite-metasediment contact zone by bulldozer trenching and core drilling.

Significant uranium ore deposits have been found in the Midnite Mine area, about 6 miles south of the project, along the same contact.

The subject project was approved because soil samples taken along the contact indicated that the zone was equally as favorable as the contact zone near the Midnite Mine. Along this zone the ore bodies range from 150 to 550 feet in length and about 15 to 60 feet in width, and extend for a distance of nearly two miles along the contact. The ore bodies occur most commonly where the dip of the contact is flattened and also appear to be controlled by systems of tight fractures and faults that cut the contact. The ore host rock is predominantly an argillite, for which the name "Togo formation" has been proposed.

The linear extent of the granite-metasediments in the project area is about 12,000 feet. It is believed that 2,400 feet of the contact was adequately explored by the work completed. Further exploration along the contact zone is warranted, especially in sec. 15.

The results of the work completed showed no significant amount of uranium ore; however, the possibility that a worthwhile deposit would have been found had the contract work been completed still remains. In view of this, a pseudo certification was included as part of the Termination Agreement.

Although the Operator was competent, it was handicapped by the lack of financing and was unable to complete the project. The Operator was unsuccessful in its attempts to raise sufficient funds by stock offerings and agreements with other oompanies.

Division of Rare and Miscellaneous Metals -
The Field Team, in a letter, dated July 1, 1958,

5. Comments (continued)

to the Operating Committee, stated that on the basis of the results completed there were no grounds for certifying the project; also, that completed work had not adequately tested the target area.

The Operator requested that the project be terminated as it did not have funds to continue the authorized work. The Government agreed to terminate the contract; however, to protect its interest in the property, a pseudo certification was incorporated in the Termination Agreement since the land is in a favorable area and will possibly be further explored at some future time for uranium deposits.

F M Murphy

F. M. Murphy

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
8/20/68		110
		220

Spokane National Mines, Inc.
424 Fernwell Building
Spokane, Washington 99204

AUG 20 1968

Re: DMEA-4671 (Uranium)
Geo-Resource Corporation
Sec. 15, T. 29 N., R. 38 E., W.M.
Stevens County, Washington
Contract Idm-E1114

Gentlemen:

By the terms of the subject Exploration Project Contract, as amended, and the Termination Agreement, dated July 11, 1958, all minerals mined or produced from July 24, 1957, to July 24, 1968, were subject to the Government's royalty as set forth in said contract.

As the period during which production was subject to royalty has now expired, the Government according to its present records retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this contract. Your attention, however, is called to the provisions of the contract which require the operator to keep and preserve certain records for the periods indicated.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to: Western Nuclear, Inc.
1700 Broadway
Denver, Colorado 80202

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
OME Region I
130

GLAult/a 8-20-68

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
GEOLOGICAL SURVEY
U. S. Court House, Rm. 656
W. 920 Riverside Avenue
Spokane, Washington 99201
August 7, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
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INITIALS | CODE
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Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region I

Subject: DMEA-4671 (Uranium)
Geo-Resource Corporation
Sec. 15, T. 29 N., R. 38 E., W. M.
Stevens County, Washington
Contract Idm-E1114

In reference to your memorandum of July 23, 1968, Don Hill of the AEC Grand Junction office advised us by telephone August 5, 1968, that there has been no production from the subject property.

D. R. MacLaren

IN REPLY REFER TO:
Office of Minerals Exploration

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

July 22, 1968

Western Nuclear, Inc.
1700 Broadway
Denver, Colorado 80202

OFFICIAL COPY
O. M. E.
RECEIVED
JUL 29 1968

INITIALS	CODE
	130
	110
	130
	220

Re: DMEA-4671 (Uranium)
Geo-Resource Corporation
Sec. 15, T. 29 N., R. 38 E.,W.M.
Stevens County, Washington
Contract Idm-E1114

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

This has reference to the Mining Lease, dated January 17, 1967, between Spokane National Mines, Inc., and Western Nuclear, Inc.

Sincerely yours,

Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to Region I

MME Form 63
Revised 7-65

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. From January 17, 1967, to July 24, 1968, ~~Since~~ , has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☑

2. From January 17, 1967, to July 24, 1968, ~~Since~~ , has there been any production from the land subject to the contract? Yes ☐ No ☑

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

   none — Quantity: none — Value: none

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore		Tons		
Concentrates		Tons		
Other		Tons		

3. Since through workings (see has any production been transported of contract)? Yes ☐ No ☒

   If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name Nathan E. Salo Title Regional Geologist

Address 1935 So Main, Salt Lake City, Utah 84115 Date July 25, 1968

SURNAME COPY

7/22/68 110

JUL 23 1968 220

Memorandum

To: Field Officer, Region I

From: Chief, Office of Minerals Exploration

Subject: DMEA-4671 (Uranium)
Geo-Resource Corporation
Sec. 15, T. 29 N., R. 38 E., W. M.
Stevens County, Washington
Contract Idm-E1114

The royalty period under the subject contract expires on July 24, 1968. Please check with the Atomic Energency Commission on possible production from the property since January 31, 1966, and advise.

FRANK E. JOHNSON

Frank E. Johnson

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
130 (2)

GLAult/a 7-22-68

OFFICIAL FILE COPY

Date	Surname	Code
2/27	Johnson	110
	Berg	
	Lang	140
	[redacted]	110
		220

MAR 5 1968

Mr. H. J. Tibbits
Spokane National Mines, Inc.
424 Fernwell Building
Spokane, Washington 99204

Re: DMEA-4671 (Uranium)
Geo-Resource Corporation
Sec. 15, T. 29 N., R. 38 E., W.M.
Stevens County, Washington
Contract Idm-E1114

Dear Mr. Tibbits:

We wish to bring to your attention that the copy of the Mining Lease dated January 17, 1967, covering the subject property submitted on February 18, 1968, does not contain any reference to the Government's rights in accordance with paragraph 5 of the Consent to Lien and Subordination Agreement dated September 24, 1967, executed by Universal Mining Corporation.

Under the circumstances, the Government will look to Spokane National Mines, Inc., as successor to Universal Mining Corporation for payment of royalty due on any production from the land under the exploration contract.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file

FEJohnson/bih 2/27/68

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

OFFICIAL COPY
O. M. E.
RECEIVED
FEB 26 1968
INITIALS CODE
110
130

FEB 6 1968

Mr. H. J. Tibbits
Spokane National Mines, Inc.
424 Fernwell Building
Spokane, Washington 99204

Re: DMEA-4671 (Uranium)
Geo-Resource Corporation
Sec. 15, T. 29 N., R. 38 E., W.M.
Stevens County, Washington
Contract Idm-E1114

Dear Mr. Tibbits:

Thank you for returning the completed MME Form 63, dated January 22, 1968, advising that the subject property was leased to Western Nuclear, Inc., Denver, Colorado, on January 27, 1967.

In accordance with the terms of the contract, please forward a copy of the lease entered into with Western Nuclear, Inc., for our records.

Sincerely yours,

Frank E. Johnson

Frank E. Johnson
Chief, Office of
Minerals Exploration

2-18-68

Mr Frank E Johnson
Copy of agreement requested
enclosed

Cordially Yours
H J Tibbits
President

MINING LEASE

THIS LEASE AND OPTION made and entered into this 17th day of January, 1967 by and between SPOKANE NATIONAL MINES, INC., a Nevada corporation, hereinafter called "Spokane" or "Lessor" and WESTERN NUCLEAR, INC., a Delaware corporation with its principal office at 1700 Broadway, Denver, Colorado, hereinafter called "Western" or "Lessee",

W I T N E S S E T H:

1. For and in consideration of the sum of $2,133.66 cash in hand paid, and for and in consideration of the full and faithful performance of each and all of the terms, conditions, and agreements herein contained to be kept and performed by the Lessee, the Lessor has leased, let, and demised and, by these presents, hereby does lease, let, and demise unto the Lessee, its successors and assigns, all of the following described land situated in Stevens County, Washington, which tracts are hereinafter collectively referred to as the "premises" to-wit:

Township 29 North, Range 38 East, W.M.		Acres
Section 3:	All	640
Section 5:	All	640
Section 9:	All	640
Section 15:	All	640
Section 17:	All	640
Section 13:	SW¼ NW¼	40
Section 18:	SE¼SW¼; S½SE¼; NW¼SE¼	160
Section 20:	Lots 1, 2, 3, and 4	148.8
Section 21:	Lots 1, 2, 3, and 4	148.52
Township 30 North, Range 38 East, W.M.		
Section 29:	NE¼, S½	480

containing 4,267.32 acres, more or less.

2. The term of this lease shall commence on the day and year first above written, and, unless sooner terminated as hereinafter provided, shall run for a period of 10 years from [illegible] and after said renewable date and so long thereafter as Lessee

carries on an active mineral exploration program in the area or there is mineral production from said premises.

3. Lessor reserves and Lessee covenants and agrees to pay as rental for the premises the following amounts:

(a) For the first year, the sum of $2,133.66 receipt of which has been acknowledged in Paragraph 1 hereof, and which is equal to $0.50 per acre;

(b) For the second and each succeeding year the sum of $0.50 per acre payable on or before the anniversary date of this Lease for each tract kept under this Lease, until such time as the production royalty payment, as hereinafter defined, exceeds the yearly rental payment.

4. On all uranium ore mined and produced from the premises, Lessor reserves and Lessee agrees to pay a percentage royalty based on the selling price and the amount of U_3O_8 contained in uranium concentrate derived from such uranium ore, pursuant to the following schedule:

Percentage Royalty	Concentrate Sale Price Per Pound U_3O_8
3%	Up to $8.00
4%	from $8.01 to $10.00
5%	from $10.01 to $11.00
6%	from $11.01 to $12.00
7%	from $12.01 to $13.00
8%	from $13.01 to $14.00
9%	from $14.01 to $15.00
10%	Over $15.01

Lessee shall remit royalty payments to Lessor on or before the 20th day of each month following the month in which the uranium ore is processed into and packaged as uranium concentrate. The uranium concentrate selling price shall be the price under the sales contract or contracts pursuant to which

Lessee will sell and deliver such uranium concentrate, provided however, that if Lessee later sells and delivers such uranium concentrate under a different contract or sales arrangement at a higher price, Lessee will recalculate the royalty on the higher price basis and will remit the balance due Lessor within 30 days after the actual delivery of such uranium concentrate to the purchaser thereof.

5. Lessor agrees to acquire for the benefit of the Lessee and to grant to the Lessee the right to use so much of the surface of said premises as may be necessary, useful or convenient for the full enjoyment of all rights herein granted to Lessee including, but not limited to, the rights to explore for, develop, mine (by open pit, underground, strip mining, solution mining or any other method) extract, mill, store, remove and market therefrom all uranium minerals.

6. The rights of the Lessor hereunder may be assigned in whole or in part and the provisions hereof shall extend to the heirs, executors, administrators, successors and assigns of the Lessor, but no change or division in ownership of the premises or rentals, however accomplished, shall operate to enlarge the obligations or diminish the rights of Lessee. No such change or division in the ownership of the premises or rentals shall be binding upon Lessee for any purpose until forty-five (45) days after such person acquiring any interest shall furnish Lessee at Lessee's principal place of business, with the instrument or instruments, or certified copies thereof, evidencing such change, transfer or division of ownership.

7. In case of suit, adverse claim, dispute or question, as to the ownership of the premises or of the rentals (or any interest therein) payable under this Lease, Lessee shall not

be in default in payment of rentals until such suit, claim, dispute or question has been finally disposed of, and Lessee shall have thirty (30) days after being furnished with the original instrument or instruments disposing of such suit, claim or dispute (or a certified copy or copies thereof), or after being furnished with proof sufficient, in Lessee's opinion, to settle such question, within which to make payment. Should the rights or interest granted Lessee hereunder be disputed, it shall not be counted against Lessee either as affecting the term of the Lease (which shall be extended by the period of dispute) or for any other purpose and the Lessee may withhold the making of all payments due Lessor hereunder without interest until there is a final adjudication or other determination of such dispute.

9. Lessee shall have the right at any time to abandon, surrender, and terminate this Lease in the event commercial ores cannot, in the opinion of the Lessee, be produced from the premises. Lessee shall also have the right to quitclaim back to Lessor any portion of said premises as described in Paragraph 1, at any time in the event commercial ores cannot, in the opinion of Lessee, be produced from said portion of said premises. In the event the Lessee shall make such a determination to surrender the same, it shall give the Lessor written notice thereof at the Lessor's address, 414 Fernwell Building, Spokane, Washington 99201, by Registered Mail, not less than ten (10) days prior to any such surrender, and, except for accrued rental obligations if any, all of Lessee's obligations hereunder, including obligations for rental payable after the date of surrender, shall thereupon cease and terminate. In the event of the failure of this Lease or its forfeiture or termination as provided herein, the Lessee shall have a reasonable length of time in

to remove from said mining claims any and all equipment, machinery, buildings, ore bins and surface improvements, whether affixed to the realty or otherwise, excluding, however, timber or underground supports.

10. The Lessor represents that it is the sole owner and in rightful possession of the mineral estate in and under the fee lands covered by this Lease; that there are no liens or encumbrances of any kind or nature whatsoever now standing against said mineral estate or against any ore to be hereinafter produced therefrom. The Lessor further represents that it has the legal right to enter into this mining lease and that upon consummation of the same, the Lessee may mine and sell any and all uranium ores produced therefrom to any legal market.

11. All mining operations on the premises shall be carried on in a proper and miner-like fashion in compliance with all applicable laws and regulations and with due regard for the development and preservation of the premises as a workable mining property.

12. The Lessee hereby grants unto the Lessor and to its agents the right to visit the mining premises at any time for the purpose of inspecting the activities of the Lessee and does further grant unto the Lessor and its agents permission to visit such plants as may process any of the ores extracted from said premises for the purpose of satisfying themselves as to the quality, quantity and such other relevant information as they may care to have. The Lessor and its agents shall have the right to take all samples necessary to determine grade and kind of ore being mined, shipped, processed or sold from the premises.

13. The Lessee shall keep and maintain drilling records, maps and assays arising out of its development, exploration and mining operations hereunder and shall open them to the inspection of the Lessor at all reasonable times and the Lessor shall be entitled to copy any or all thereof at its own expense.

14. The Lessee promises to promptly pay all taxes assessable to it because of its investment made on account of this lease. Said tax shall be promptly paid when due, and said Lessee further promises to pay seasonably and before delinquency all taxes on ore in place or stockpiles, either on or off the premises. Lessor shall pay the general property taxes applicable to its fee lands included within the premises.

15. Any and all notices to be given the Lessor hereunder shall be mailed to it at 414 Fernwell Building, Spokane, Washington 99201, in care of and to the attention of the Lessor. Any and all notices provided for herein or otherwise that the Lessor may desire to deliver to the Lessee shall be addressed to the Lessee at 1700 Broadway, Denver, Colorado, 80202, which is its principal place of business. Notices shall be valid if given by certified or registered mail, return receipt requested, and shall be effective as of the date of mailing. Either party hereto may change its address for notices by giving written notice of such change of address to the other party in the manner herein provided.

16. The Lessee warrants that it is a corporation duly organized under and existing by virtue of the laws of the State of Delaware and that after the execution hereof it will promptly qualify to do business in the State of Washington, and further warrants that it is duly authorized to enter this agreement.

17. The Lessee does hereby promise and agree to carry adequate public liability coverage at its expense for the purpose of protecting both the Lessee and the Lessor from any third party claims arising out of the personal injury or property damage claims which may be made by third persons during the term of this Lease.

18. All bills and expenses incurred by the Lessee, or those in privity with it, shall be promptly paid by the Lessee, and by such prompt payment the Lessee shall prevent the filing of any and all liens against the premises for and on account of labors, supplies, materials, equipment or services furnished or performed, and if by reason of the failure of said operators to pay such bills or expenses a lien or liens shall be filed against said premises, said Lessee, at its expense, shall contest and defend against such liens, and if as a result thereof any such lien shall be established against said premises, the Lessee shall promptly pay off and discharge the same, and if said Lessee shall fail to do so, then the Lessor shall have the right, but not the duty, to pay off and discharge the same, and said Lessee holds itself liable and bound to pay to the Lessor all sums so advanced or paid to clear said premises from such liens, and Lessee shall save Lessor harmless from all liens upon the property made or suffered by Lessee, and in that connection shall post the property, in accordance with law, noticing owner's (Lessor) nonresponsibility, before commencing any work.

19. Upon the violation of any covenant, provision or consideration herein contained in this Lease, the Lessor shall give the Lessee notice thereof, in writing, and in the event of

any such violation, breach or default the same is not remedied and the terms and conditions of this agreement fully complied with and in every way restored to good standing within 60 days of the date of giving notice to the Lessee, then this Lease shall, at the option of the Lessor, expire and terminate, and the said Lessor, or its agent, may thereupon after demand of possession, in writing, enter upon said premises and dispossess all persons occupying the same, with or without force and with or without due process of law.

20. The Lease, or any interest therein, shall not be sold, assigned, transferred or hypothecated by said Lessee herein without first obtaining the written consent of said Lessor, and said Lessor agrees not to unreasonably withhold such consent, it being the intention by this provision of this agreement to prevent transfer of this Lease to anyone who might speculate in a manner considered unethical by a legitimate mining operation.

21. Without impairment of the warranty contained in this lease, if Lessor owns less than the entire and undivided mineral estate in the above-described Leased Premises then the rentals and royalties herein provided shall be proportionately reduced and paid to Lessor only in the proportion which Lessor's interest bears to the entire undivided mineral estate.

IN WITNESS WHEREOF, the parties hereto have executed this Mining Lease and Option to Purchase as of the day and year first above written.

SPOKANE NATIONAL MINES, INC.

By Harwood J. Tibbits
~~Harwood J. Tibbetts~~, President
(Harwood J. Tibbits)

ATTEST:

H.W. Beaty
~~W. H. Beatty,~~ Secretary
H.W. BEATY (Hwb)

WESTERN NUCLEAR, INC.

By James A. Larson
James A. Larson, Executive Vice President

ATTEST:

James T. Moran
James T. Moran, Secretary

STATE OF COLORADO)
) ss.
CITY & COUNTY OF DENVER)

The foregoing was acknowledged before me this 17th day of January, 1967 by James A. Larson as Executive Vice President and James T. Moran as Secretary of WESTERN NUCLEAR, INC., a Delaware Corporation. Witness my hand and official seal.

Nancy J. Michaelson
Notary Public

My Commission expires My Commission expires Nov. 25, 1970.

STATE OF WASHINGTON)
) ss.
COUNTY OF Spokane)

The foregoing was acknowledged before me this 23 day of January, 1967 by ~~Harwood J. Tibbetts~~ HARWOOD J. TIBBITS (Herb) as President and ~~W. H. Beatty~~ H. W. BEATY (Herb) as Secretary of SPOKANE NATIONAL MINES, INC., a Nevada Corporation. Witness my hand and official seal.

Notary Public

My commission expires Oct 27 1970.

MME FORM 6
REV. 2-59

REFERENCE SLIP
OFFICE OF MINERALS EXPLORATION

	DATE	INITIALS
TO: Chief, OME	2/1/66	
1. Re: DMEA-4671 (Uranium) Geo-Resource Corp.		
2. Secs. 10 and 15, T. 29 N. R. 38 E., W.M.		
3. Stevens County, Wash. Contract Idm-E1114		
4. D. R. MacLaren		
5.		
FROM: Field Officer, Reg. I		

FOR: Check items for action desired

____ Action	____ Reply for signature of ____	____ Surname
____ Approval	____ Investigate	____ Signature
____ Comment	____ Recommendations	____ File
____ Conference	____ Rewrite	
____ Instructions	X Your information	

REMARKS: In reply to my letter of 1/25/66.

reply requested July 67

INT.-DUP. SEC., WASH., D.C.

M56300-62

STATE OF WASHINGTON

Department of

Natural Resources

COMMISSIONER
BERT COLE

SUPERVISOR
L. T. WEBSTER

BOX 168
OLYMPIA, WASHINGTON
98501

January [illegible] 1960

Mr. D. R. MacLaren
Field Officer DME, Region I
U. S. Department of the Interior
Office of Mineral Exploration
Geological Survey
South 157 Howard Street
Spokane, Washington 99204

~~120 DME~~
~~120~~

Dear Mr. MacLaren:

Re: DMEA-4b7[illegible] (Uranium) Geo-Resources [illegible]
Secs. 10 and 15, T. 29 N., R. [illegible] W. M.
Stevens County, Washington [illegible]

A check of our records indicates the [illegible]

All of Section 10, Township 29 North, Range [illegible] East, is open and available for mineral [illegible].

Section 15, Township 29 North, Range [illegible] East, is not state land.

All of the contracts itemized on our [illegible] of July 13, 1959, were cancelled as indicated. No further mineral leasing has taken place since that date.

If we may be of further assistance, please let me know.

Sincerely,

BERT L. COLE
Commissioner of Public Lands

/s/ Donald M. Ford
By Donald M. Ford, Geologist
Assistant Division Supervisor
Lands Division

DMF/ad

OME(2)

GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane, Washington 99204
January 25, 1966

OFFICIAL COPY
JAN 1966

Commissioner of Public Lands
State of Washington
Department of Natural Resources
Olympia, Washington

~~120~~
~~120~~
220

Re: DMEA-4671 (Uranium)
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N.,
R. 38 E., W.M.
Stevens County, Washington
Contract Idm-E1114

Dear Sir:

The Office of Minerals Exploration has become an integral part of the U. S. Geological Survey, which is now charged with the duty of making periodic reports relative to OME contracts.

We will be most appreciative if you will advise us as to the present lease status of the lands cited in the enclosed Thermo-Fax copy of an Order from your office dated July 13, 1959.

Sincerely yours,

D. R. MacLaren
Field Officer, OME
Region I

Enclosure
DRMacLaren/mas
cc: OME(2)
CPF

Director's Reading File

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane, Washington 99204
January 25, 1966

OFFICIAL
COPY
O. M. E.
RECEIVED
JAN 27 1966
INTERIM CODE
~~120~~ m
~~120~~
320

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region I

Subject: DMEA-4671 (Uranium)
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N., R. 38 E., W.M.
Stevens County, Washington
Contract Idm-1114

I have not had an opportunity to visit the subject area. However, on January 18, 1966, William D. Weaver, formerly president of the subject defunct corporation, was in the Spokane office. Presently, Weaver is acting as a consultant for Spokane National Mines, Inc., successor to Universal Mining Co., and as such, owner of the land in sec. 15, T. 29 N., R. 38 E. Weaver had recently checked the Spokane National files on this property and told me that no work has been done since the end of the Geo-Resource project.

I shall write to the Washington State Commissioner of Public Lands regarding the status of section 10.

D. R. MacLaren

D. R. MacLaren

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
10/29	Murphy	120
	Selfridge	130
10/29	Johnson	110
		220

OCT 29 1965

Memorandum

To: Field Officer, Region I

From: Chief, Office of Minerals Exploration

Subject: RMEA-4671 (Uranium)
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N., R. 38 E., W.M.
Stevens County, Washington
Contract Idm-1114

With reference to our memorandum of February 28, 1964, if you have the opportunity to visit the subject area, please advise the status of the land concerned.

(signed) FRANK E. JOHNSON (gla)

Frank E. Johnson

FMMurphy/mm (10/29/65)
cc: Director's Reading File
Division File
Economic Geology File
OME Reading File
Mr. Selfridge
120M

23263

STATE OF WASHINGTON

Department of

Natural Resources

COMMISSIONER
BERT COLE
SUPERVISOR
L. T. WEBSTER

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 23 1964

DATE	INITIALS	CODE
3/23		8
3/24	Murphy	500
		220

BOX 110
OLYMPIA, WASHINGTON

March 16, 1964

U. S. Department of the Interior
Office of Minerals Exploration
South 157 Howard Street
Spokane, Washington 99204
Attention: Mr. D. R. MacLaren
Acting Field Officer, OME
Region 1

Gentlemen:

Re: DMEA-4671 (Uranium)
Geo-Resource Corporation
Secs. 10 and 15, T. 29N,
R. 38E, W.M.
Stevens County, Washington
Contract Idm-E1114

A check of our records indicate that Section 15, Township 29 North, Range 38 East, W.M., is not State land.

All of the contracts indicated on the Commissioner's Order are located in Section 10, Township 29 North, Range 38 East, W.M. All of the lands in Section 10 are presently open and unencumbered by any mining contract or prospecting lease. In the event that your reference to Section 15 may have been a typographical error, a check was made on Sections 12, 14 and 16, Township 29 North, Range 38 East. No mining contracts or prospecting leases are in existence on these sections.

If we may be of any further service, please feel free to contact us at any time.

Yours truly,

BERT L. COLE, Commissioner

/s/ Donald M. Ford

By Donald M. Ford, Geologist
Assistant Supervisor
Lands Division

DMF:vbm

OME (2)

OFFICIAL FILE COPY
O. M. E
RECEIVED MAR 11 1964

DATE	INITIALS	CODE
3/11	[illegible]	800
3/11	Murphy	500
		220

So. 157 Howard Street
Spokane, Washington 99204
March 9, 1964

Commissioner of Public Lands
State of Washington
Department of Natural Resources
Olympia, Washington

Re: DMEA-4671 (Uranium)
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N.,
R. 38 E., W.M.
Stevens County, Washington
Contract IDm-K1114

Dear Sir:

We are enclosing a Thermo-Fax copy of an Order by the State of Washington, Department of Natural Resources, dated July 13, 1959, which cancelled certain mining contracts listed therein.

The Office of Minerals Exploration, as the successor agency to the Defense Minerals Exploration Administration, is charged with the duty of making periodic reports relative to contracts of the latter agency. The DMEA contract cited above involved the land listed in the first paragraph.

We will be most appreciative if you will advise us whether or not the above land has been re-leased and, if so, to whom.

Sincerely yours,

D. R. MacLaren
Acting Field Officer, OME
Region I

Enclosure

cc: OME(2)
CPF

Director's Reading File
Resources Research Branch Chief

DRMacLaren:mls

Dme (r)

RECEIVED
DATE
Murphy 500
220

Se 157 Howard Street
Spokane, Washington 99204
February 28, 1964

Air Mail

Memorandum

To: Chief, Fiscal Section, Division of Administrative Services
Office of the Secretary, Washington, D C

From: Acting Field Officer, Region I

Subject: DMEA-4671 (Uranium)
Geo-Resource Corporation
Blue Mountain Property
Stevens County, Washington
Contract Idm-Ellh

There is enclosed the original of a Report of Royalty Review dated February 24, 1964, covering the subject contract for the period September 9, 1959, through February 16, 1964.

One copy of the report has been retained for the Spokane office files. The report is for record purposes only, and no copy was provided for the Operator.

D. R. MacLaren

Enclosure

cc: OME(2)
CA&A Div.
CPF

Director's Reading File
Resources Research Branch Chief

ML Smelser
~~DRMacLaren~~:mls

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
2/27	Murphy	500
	[illegible]	500
2/27	[illegible]	800
	GCL	130
2/27	[illegible]	110
	[illegible]	100
		220

Memorandum

FEB 28 1964

To: Acting Field Officer, Region I

From: Chief, Division of Field Operations

Subject: DMEA-4671 (Uranium)
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N., R 38 E., W.M.
Stevens County, Washington
Contract Idm-E1114

Enclosed are self-explanatory copies of MME-Form 63 and a State of Washington order for cancellation of mining leases relating to Section 10.

Geo-Resource Corporation was the only "surety" under the contract and if it no longer exists as reported by Spokane National Mines, Inc., in its letter of October 7, 1963, copies of which were forwarded to you, there is no "surety" under the contract.

Neither Grandview Mines nor the eight original lessees of Section 10 are "sureties" for royalty. All merely subordinated their interests and granted the Government a lien thereon. As the land has reverted to the State, the Government no longer has a lien on Section 10.

Our only remaining lien pertains to Section 15, owned by Spokane National Mines, Inc., as successor to Universal Mining Corporation.

It is doubtful that uranium ore will be produced from either Sections 10 or 15; however, it is suggested that a check with the State of Washington on the possible releasing of Section 10 be made and, if possible, a yearly on-site inspection of the property arranged.

Enclosures

FMMurphy/mm (2/27/64)
cc: Director's Reading File
Review Committee
Docket
Code 500

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
2/27	Murphy	500
2/27	Talbot	800
	Selfridge	120
2/27	Johnson	110
	[illegible]	100
		220

Grandview Mines, Inc.
309 Radio Central Building
Spokane 4, Washington

FEB 28 1964

Re: DMEA-4671 (Uranium)
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N., R. 38 E., W.M.
Stevens County, Washington
Contract Idm-E1114

Gentlemen:

This is to acknowledge receipt of the completed copies of MME Form 63 forwarded to you on February 10, 1964, and the enclosed order for cancellation of mining contracts on state land in Sec. 10, T. 29 N., R. 38 E., W.M., in Stevens County.

Sincerely yours,

W. R. Griswold

W. R. Griswold, Chief
Division of Minerals

FMMurphy/mm (2/27/64)
cc: Director's Reading File
Region I w/cy of Form 63 dated 2/10/64 and order for cancellation of mining leases
Docket
Code 500

23263

ME Form 7
10-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

FEB 24 1964

Memorandum

To: Acting Field Officer, Region I

From: Chief, Contract Administration and Audit Division (Signed) E. D. Talbert

Subject: DMEA-4671 (Uranium)
Geo-Resource Corporation
Blue Mountain Property
Stevens County, Washington
Contract Idm-E1114

The original and one copy of a Report of Royalty Review covering the subject contract are enclosed. If you concur in the facts stated therein, please make the following distribution:

(a) Original to the Fiscal Section, Office of Management Operations, Office of the Secretary, U. S. Department of the Interior, Washington, D. C. 20240; and

(b) One copy for your files.

This Report of Royalty Review is made for record purposes only; therefore, no copy for the Operator is provided.

As evidence of your concurrence, a copy of your memorandum transmitting the original report to the Fiscal Section should be furnished this Division. If for any reason you do not concur, both copies of the report should be returned to this Division with your comments.

Enclosures

EDTalbert/ama 2-24-64

cc:
Docket
Director's Reading File
CA & A Division
Fiscal Section

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
10/10	Murphy	500
10/10	on leave	500
10/10	Talbot	800
	Selfridge	920
10/10	Johnson	110
	[illegible]	100
		220

OCT 10 1963

Mr. H. J. Tibbits
Spokane National Mines, Inc.
414 Fernwell Building
Spokane 1, Washington

Re: DMEA-4671 (Uranium)
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N.,
R. 38 E., W.M.
Stevens County, Washington
Contract Idm-E1114

Dear Mr. Tibbits:

This is to acknowledge your letter of October 7, 1963, in reply to the request for information forwarded to Universal Mining Corporation on September 18, 1963.

Under the terms of the subject contract, as amended, and the Termination Agreement, dated July 11, 1958, any production from either section 10 or section 15 is subject to the Government's percentage royalty from July 24, 1957, to July 24, 1968, or until the Government's contribution of $11,313.05 has been repaid, whichever occurs first.

This office as successor to the Defense Minerals Exploration Administration has the responsibility of supervising its exploration contracts. Because of our limited field personnel, we are mailing requests for information in lieu of making an on-site inspection of the properties in which the Government retains an interest.

In addition to the information given in your letter, will you kindly advise whether or not there has been any change in the lease status of Washington State land sections 10 and 15 since the date of the contract.

Sincerely yours,

George Fumich, Jr.

Director

FMMurphy/mm
10/10/63
cc: Director's Reading File
Region I w/cy of incoming letter
Docket
Code 500

43683

SPOKANE NATIONAL MINES, INC.
414 FERNWELL BUILDING
SPOKANE 1, WASHINGTON

OFFICIAL FILE COPY
O. M. E
RECEIVED OCT 9 1963

DATE	INITIALS	CODE
10/9	[illegible]	800
10/9	Murphy	500

October 7, 1963

Mr. F. M. Murphy, Acting Chief
Division of Minerals
U. S. Department of Interior
Office of Minerals Exploration
Washington 25, D. C.

RE: DMEA-4671 (Uranium)
Geo-Resource Corporation
Seca. 10 and 15, T. 29 N.,
R. 38 E., W.M.
Stevens County, Washington
Contract Idm-E1114

Dear Mr. Murphy:

Your letter of September 18, 1963 addressed to Universal Mining Corporation just came to my attention, Spokane National Mines, Inc. being the successor corporation to Universal Mining Corporation. Geo-Resource Corporation went out of business in late 1959 evidently for financial reasons.

Most of the DMEA work was done on Section 10 both surface and drilling. No commercial uranium was found to our knowledge.

A road was built into Section 15 but because charges were made to Universal Mining Corporation for this work, I do not believe any DMEA money was spent on this section. I was told that an amendment to the original loan had been made to cover this work. I have carefully gone over Section 15 and there is no evidence of any work under the alledged amended DMEA loan project. Right. Amen. all work on sec. 10

There is surface indications of Autenite and Uranifane on Section 15 which would have been prospected except for AEC directive of October 1957 regarding new discoveries. In fact the whole Pacific Northwest Uranium exploration program went down the drain at that time with the exception of the Midnite Mine in Stevens County.

As I was and still am the Executive Secretary of the Northwest Uranium Ass'n. I have complete data on all operations in Washington and Northern Idaho and have personally verified most operations. There is uranium in the area that could be mined if shipping permits ever become available. I know that this DMEA project never was given a permit to ship if ore had been found.

Very truly yours,

H. J. Tibbits

HJT/jli

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/11	Murphy	500
	Selby	120
3/12	[illegible]	110
3/12	[illegible]	100
		220

Mr. William D. Weaver
President
Geo-Resource Corporation
1215 E. Thurston Avenue
Spokane 4, Washington

MAR 12 1963

Re: DMEA-4671 (Uranium)
Geo-Resource Corporation
Secs. 10 & 15, T.29 N.,
R.38 E., W.M.
Stevens County, Washington
Contract Idm-E1114

Dear Mr. Weaver:

Will you kindly complete and return two copies of the Form 63 which you received by registered mail on December 1, 1962. The information requested is essential for our records; therefore, an early return of the completed forms will be appreciated.

Sincerely yours,

W. R. Griswold

W. R. Griswold, Chief
Division of Minerals

FMMurphy/mm
3/11/63
cc: Director's Reading File
Docket
Code 500

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/18/58	Murphy	700
12/19	Kuhnke	700
	Long	140
	Jensen	140
12-22	Thornton	800
12/22	[illegible]	130
12/30	Barck	130
12/30	Nelson	130
	On leave	~~110~~
		~~100~~ 220
		700

Mr. William D. Weaver, President
Geo-Resource Corporation
Suite 525-528 Hutton Building
Spokane 4, Washington

DEC 31 1958

INTERIOR DEPT.
DEC 19 1958
SOLICITOR

Re: Docket No. DMEA-4671 (Uranium)
Contract No. Idm-E1114
Secs. 10 and 15, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

12/31 C

Dear Mr. Weaver:

Reference is made to the subject contract which was terminated by mutual agreement on July 11, 1958.

By the terms of the Exploration Project Contract, as amended, and the Termination Agreement, all production of minerals from the land described in the contract, from July 24, 1957, is subject to the Government's percentage royalty as set forth in the contract until the sum of $11,313.05 is paid, or until July 24, 1968, whichever occurs first.

Payments should be made to the Executive Officer, OME Field Team, Region I, South 157 Howard Street, Spokane 4, Washington. Checks should be payable to the Office of Minerals Exploration, which is the successor to the Defense Minerals Exploration Administration. The purchaser should be advised to deduct the royalties from the amount due on each shipment and forward the check directly to the Executive Officer. Any bonus payments or allowances received by you from production are considered to be a part of the purchase price to which the Government's royalty applies. Royalty payments to the Government should be accompanied by suitable evidence, such as copies of settlement sheets, showing quantity and grade of the products sold, the name of the purchaser, and the price and charges, certified to be correct by the purchaser.

You are requested to notify the Executive Officer of any changes in ownership or production rights that might have any effect on the Government's right to its percentage royalty. Your attention is especially called to Article 2 (d) of the contract relating to the preservation of the Government's right to a percentage royalty on production. Also, if production is not made for an extended period, please notify the Executive Officer at six-month intervals that no production has been made, when that is the case.

Sincerely yours,

George C. Selfridge (for)
Acting Director

Distribution listed on next sheet

8623

Docket No. DMEA-4671
Contract No. Idm-E1114
Geo-Resource Corporation

FMMurphy/gla
12-18-58
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, Rm. 5224
T. H. Kiilsgaard, Rm. 5224
F. M. Murphy
Division of Contract Adm. & Audit
OME Field Team, Region I (2)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/18/58	Murphy	700
12/19	Endorsed	700
	Long	140
	Alexander	140
12-22	Chadwick	800
12/30	GCL	130
	On leave	~~110~~

Mr. A. E. Weissenborn
Executive Officer
OME Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

DEC 31 1958

Re: Docket No. DMEA-4671 (Uranium)
Contract No. Idm-E1114
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

~~100~~
220
700

Dear Mr. Weissenborn:

Enclosed for your files are two copies of a letter to the Operator outlining its responsibility under the terms of the subject contract. Also enclosed are two copies of letters to nine owners.

The address for Mr. Cline R. Tedrow, President, Universal Mining Corporation, has not been supplied this office. We are, therefore, attaching a date-stamped original letter and nine distribution copies. Please insert the correct address, forward the original to Mr. Tedrow, and return all copies, except those indicated for the Field Team, to this office for distribution.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures

APPROVED:

C. T. BAROCH

Member, Bureau of Mines

N. E. Nelson

Member, Geological Survey

FMMurphy/gla 12-18-58
cc to: Director's Reading File
Operating Committee
Frank E. Johnson
T. H. Killsgaard, Rm. 5224
Frank D. Lamb, Rm. 3608
F. M. Murphy
Contract Adm. & Audit Division

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	See attached	
12/30	GCS	130
12/30	Baird	130
12/30	Nelson	130
		~~[illegible]~~

Mr. Cline E. Tedrow, President
Universal Mining Corporation
S. 4055 Madelia
Spokane, Washington

DEC 31 1958

Re: Docket No. DMEA-4671 (Uranium)
Contract No. Idm-E1114
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

$19 c 216 225 700

Dear Mr. Tedrow:

Enclosed is a copy of our letter of today to the Operator outlining its responsibility under the terms of the subject contract, as amended.

This correspondence relates to the Consent to Lien and Subordination Agreement signed by you on September 24, 1957. The Government's prior lien on the land and upon any production therefrom will continue in existence for the length of time mentioned in the enclosed copy of the letter to the Operator. You are obligated during that period to commit no act and to assert no claim in conflict with the Government's rights under the agreement signed by you, and to give advance notice of the Government's rights to any transferee or lessee of any part of your interest in the land or the production therefrom.

Sincerely yours,

George C. Selfridge (for)

Acting Director

Enclosure

FMMurphy/gla 12-18-58
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
F. M. Murphy
Contract Adm. & Audit Division
OME Field Team, Region I (2)

DMEA Form 7
(12-56)

12/18/58

OFFICIAL FILE COPY

Date	Surname	Code
12/18/58	Murphy	700
12/19	Knowlec	700
	Long	140
	Sturgis	140
12-22	Chandler	800
		130
	On leave	~~110~~

Mr. Cline E. Tedrow, President
Universal Mining Corporation

Re: Docket No. DMEA-4671 (Uranium)
Contract No. Idm-E1114
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

100
220
700

Dear Mr. Tedrow:

Enclosed is a copy of our letter of today to the Operator outlining its responsibility under the terms of the subject contract, as amended.

This correspondence relates to the Consent to Lien and Subordination Agreement signed by you on September 24,1957. The Government's prior lien on the land and upon any production therefrom will continue in extence for the length of time mentioned in the enclosed copy of the letter to the Operator. You are obligated during that period to commit no act and to assert no claim in conflict with the Government's rights under the agreement signed by you, and to give advance notice of the Government's rights to any transferee or lessee of any part of your interest in the land or the production therefrom.

Sincerely yours,

Acting Director

Enclosure

FMMurphy/gla 12-18-58
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
F. M. Murphy
Contract Adm. & Audit Division
OME Field Team, Region I (2)

8623

DMEA Form 7
(12-56)

12/18/58

OFFICIAL FILE COPY

Date	Surname	Code
	Murphy	700
12/19	Kubasek	700
	Long	140
	Shuyler	140
12-22	Chandler	800
12/30	GL	130
12/30	Baird	130
12/30	Nelson	130
	On leave	~~110~~
		~~100~~ 220
		700

Miss Mae C. Hamilton
1416 E.9th
Spokane, Washington

Re: Docket No. DMEA-4671 (Uranium)
Contract No. Idm-E1114
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N., R. 38 E.,W.M.
Stevens County, Washington

Dear Miss Hamilton:

Enclosed is a copy of our letter of today to the Operator outlining its responsibility under the terms of the subject contract, as amended.

This correspondence relates to the Consent to Lien and Subordination Agreement signed by you on July 22, 1957. The Government's prior lien on the land and upon any production therefrom will continue in existence for the length of time mentioned in the enclosed copy of the letter to the Operator. You are obligated during that period to commit no act and to assert no claim in conflict with the Government's rights under the agreement signed by you, and to give advance notice of the Government's rights to any transferee or lessee of any part of your interest in the land or the production therefrom.

Sincerely yours,

George C. Selfridge (fw)

Acting Director

Enclosure

Identical letters to 7 persons listed on attached sheet.

FMMurphy/gla
12-18-58
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
F. M. Murphy
Contract Adm. & Audit Division
OME Field Team, Region I (2)

8623

Docket No. DMEA-4671
Contract No. Idm-E1114
Geo-Resource Corporation

Identical letters to the following persons:

E. K. Barnes
1008 W. 19th Avenue
Spokane, Washington

John H. Roberts
120 Rockwood
Spokane, Washington

Ruby K. Anderson
2308 S. Jefferson
Spokane, Washington

Amy Satterstrom
820 E. 35th
Spokane, Washington

Paul T. Hoetzel
1116 Club Court
Spokane, Washington

E. O. Dressel
Metaline Falls, Washington

Ellamae Anderson
1204 W. 18th
Spokane, Washington

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/18/58	Murphy	700
12/19	Knowlt	700
	Long	140
	Sharpe	140
12-22	Chandler	800
12/30	[illegible]	130
12/30	Brock	130
12/30	Nelson	130
	On leave	~~110~~

~~100~~
220
700

DEC 31 1958

Mr. Karl W. Jasper, President
Grandview Mines
310 Radio Central Bldg.
Spokane, Washington

Re: Docket No. DMEA-4671 (Uranium)
Contract No. Idm-E1114
Geo-Resource Corporation
Secs. 10 and 15, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

Dear Mr. Jasper:

Enclosed is a copy of our letter of today to the Operator outlining its responsibility under the terms of the subject contract, as amended.

This correspondence relates to the Consent to Lien and Subordination Agreement signed by you on July 8, 1957. The Government's prior lien on the land and upon any production therefrom will continue in existence for the length of time mentioned in the enclosed copy of the letter to the Operator. You are obligated during that period to commit no act and to assert no claim in conflict with the Government's rights under the agreement signed by you, and to give advance notice of the Government's rights to any transferee or lessee of any part of your interest in the land or the production therefrom.

Sincerely yours,

George C. Selfridge (for)

Acting Director

Enclosure

FMMurphy/gla 12-18-58
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
F. M. Murphy
Contract Adm. & Audit Division
OME Field Team, Region I (2)

8623

OFFICIAL FILE COPY O. M. E. RECEIVED DEC 12 1958		
DATE	INITIALS	CODE
12/12	C	220
		700

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

Date December 10,1958
DMEA Docket No. 4671
DMEA Contract No. Idm-E1114
Commodity Uranium - Geo-Resources Corp.
Name of Applicant Blue Mountain Property
Location of property Stevens County, Wash.
Estimated cost of project $15,084.07

Memorandum

To: Frederick L. Knouse, Acting Director, OME
Rare and Misc. Minerals Division

From: James Paone, Bureau of Mines Member JP
Uranium Commodity Committee

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

1. Date of subject document: 11/28/58 2. Date received by reviewer: 12/8/58

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

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

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

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

7. Explain items marked 'yes' above:

8. Factors meeting special consideration:

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

9. Action advised:

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

10. Remarks: (Use back of page if necessary). Although the Field Team's justification of a pseudo-certification is not too clear, undoubtedly they have substanial grounds for the recommendation. Concurrence is recommended.

F.T. did not make recommendation JPM.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

November 28, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 5 1958

DATE	INITIALS	CODE
12/5	C	220
12/5	JB	130
"	[illegible]	110
12/9	JB	130
12/10	C	220
		700

Mr. George C. Selfridge, Chairman
Operating Committee, OME
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (uranium)
Geo-Resources Corporation
Blue Mountain Property
Contract No. Idm-E1114

Dear Mr. Selfridge:

Enclosed are three copies of a Field Team final report by E. G. Erickson, Mining Engineer, U. S. Bureau of Mines, and H. F. Albee, Geologist, U. S. Geological Survey, on the cited project.

Under Stage I, 174 hours of bulldozing for access roads, trenching and drill site preparation and 1261.5 feet of core drilling were completed at a cost of $15,084.07. The amount of the Government's participation at 75 percent was $11,313.05.

Stages II and III were not started.

All of the work was done on section 10; however, the possibility that exploration on section 15 might disclose significant uranium mineralization still remains.

A pseudo-certification is incorporated in the Termination Agreement.

By Field Team, Region I

A E Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing C. Agnew

Wing C. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USGS (2)
AEC, Grand Junction, Colo. (2)

Reviewed by
OME OPERATING COMMITTEE
12-9-58
(date)

FINAL FT REPORT

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 5 1958

DATE	INITIALS	CODE
12/9	[illegible]	130
		220

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD TEAM, REGION I

FINAL REPORT

Contract Idm-E1114

Eric G. Erickson
Mining Engineer
U. S. Bureau of Mines

Howard F. Albee
Geologist
U. S. Geological Survey

GEO-RESOURCE CORPORATION
Suite 525-528 Hutton Building
Spokane 4, Washington

Docket No.:	DMEA-4671
Commodity:	Uranium
Contract date:	July 24, 1957
Termination date:	November 30, 1957

Blue Mountain Property
Stevens County, Washington

Spokane, Washington

November 1958

Reviewed by
OME OPERATING COMMITTEE
12-9-58
(date)

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Recommendations	2
LOCATION AND ACCESSIBILITY	2
PROPERTY	3
GEOLOGY	3
General Geology	3
Local Geology	5
THE PROJECT	5
Summary of Factual Data	9
Discussion of Conclusions	10

ILLUSTRATIONS

		In Pocket
Figure		
1	Index map, Blue Mountain Project	
2	Map showing geological and geographical relationships of Blue Mountain Project with the Midnite Mine Area	
3	Map showing location of proposed work in sec. 15, T. 29 N., R. 38 E., W.M.	
Plate		
1	Map of part of sec. 10, T. 29 N., R. 38 E., W.M., showing locations of dozer cuts and drill holes.	
2	Map showing approximate location of trenches and drill holes for Stage I.	

FINAL REPORT

GEO-RESOURCE CORPORATION
Blue Mountain Property
Stevens County, Washington

Contract Idm-E1114

* * * *

INTRODUCTION

This report describes a project conducted jointly by the Geo-Resource Corporation and the Defense Minerals Exploration Administration to explore for uranium in secs. 10 and 15, T. 29 N., R. 38 E., Washington meridian, Stevens County, Washington; commonly referred to as the Blue Mountain property.

Summary

The object of the exploration project was to explore for uranium ore deposits in a northeasterly-trending quartz monzonite-metasediment contact zone by bulldozer trenching and core drilling.

The contract work, outlined in three stages, included 254 hours of bulldozing for access roads, drill sites and trenching, 5,700 feet of core drilling, and related costs. The estimated cost of the project was $53,972.00 with Government participation to be 75 percent or $40,480.00.

The Operator used 174 dozer hours to bulldoze the access roads, 7 trenches and 7 drill sites, all in section 10 (pl. 1). No contract work was done in section 15. A total of 1,261.5 feet of core drilling was completed in the 7 holes. Sixty-eight and one-half percent of the authorized dozer hours and 22.1 percent of the authorized drilling was completed. The total approved cost of the completed work was $15,084.07 of which the Government's share was $11,313.05.

Work was started July 31, 1957, and was discontinued on November 28, 1957. The Operator was granted a recess until April 15, 1958 but work was never resumed because of financial difficulties, and the contract was terminated by mutual agreement effective as of November 30, 1957.

Recommendations

The Termination Agreement contains a pseudo-certification clause because, in the opinion of the Government, there is a possibility that significant deposits of uranium ore might have been found had the work authorized by the contract been completed.

The linear extent of the contact between the Loon Lake granite and the metasediments in secs. 10 and 15, T. 29 N., R. 38 E., W.M., is about 12,000 feet. It is believed that 2,400 feet of the contact was adequately explored by the project work completed. Further exploration along the contact zone is warranted, especially in the area in section 15 where exploration work was approved by the contract but not performed. Initial work should be directed to locate sheared and fractured zones near the contact which have proven to be the areas where commercial uranium deposits in the district have been found.

LOCATION AND ACCESSIBILITY

The property is in southern Stevens County about 52 air-line miles northwest of Spokane, Washington, in secs. 10 and 15, T. 29 N., R. 38 E., Washington meridian. It can be reached from Spokane by traveling 40 miles northwest on Highway No. 395 to the town of Springdale, thence 8 miles west on the Hunter road, a secondary state highway, thence 2 miles on a graded county road and 2 miles by a logging road in a southwesterly direction to the southeast portion of section 10. Section 15 joins section 10 on the south.

Federal and state highways are kept open throughout the year. The logging roads may be blocked by snow during the winter and are sometimes impassable by car in the spring and autumn due to heavy rainfall and mud.

The land is covered with second growth conifer and for the most part the undergrowth is very heavy. The northern ridge of the Blue Mountains runs to the northeast through the center of the section. The general topographic relief in section 10 is about 1,800 feet, with altitudes ranging from 2,000 to 3,000 feet. Section 15 has altitudes ranging from 2,000 to 3,800 feet.

PROPERTY

The land covered by the contract consists of all of secs. 10 and 15, T. 29 N., R. 38 E., W.M., Stevens County, Washington. Section 10 is state land but contracts for mining were executed November 28, 1956, by the State of Washington, as follows:

Name	Contract No.	Description of Land
Mae C. Hamilton	417	W½ of the SE¼
F. K. Barnes	421	W½ of the NE¼
John H. Roberts	416	W½ of the NW¼
Ruby K. Anderson	419	W½ of the SW¼
Amy Satterstrom	420	E½ of the SE¼
Paul T. Hoetzel	415	E½ of the NE¼
E. O. Dressel	414	E½ of the NW¼
Ellamae Anderson	418	E½ of the SW¼

The above-named individuals as a group leased their respective interests in section 10 to Grandview Mines, who in turn assigned its rights to Geo-Resource Corporation.

The Operator is in possession of section 15 pursuant to the terms of an Operating Agreement executed June 27, 1957, with the Universal Mining Corporation.

Exploration work performed on the property prior to the execution of the exploration project contract consisted of trenching and an extensive geochemical survey of the general area that includes sections 10 and 15.

There are neither mine plant nor underground workings on the property.

GEOLOGY

General Geology

The areal geology is similar to that of the Midnite mine located about 7 miles to the southeast (fig. 2), which is described briefly by Earnest E. Thurlow in U. S. Geological Survey Professional Paper 300 (1955), pages 85-88, and in more detail in U. S. Geological Survey Trace Elements Investigations Report 634 by Eugene L. Boudette and Paul L. Weis (1957). The geology has been taken largely from these reports and is supplemented by observations made during interim inspections.

Metasedimentary rocks of Precambrian (?) age have been intruded by the Loon Lake granite of Cretaceous age. The Loon Lake granite in this area consists of quartz monzonite, of which two varieties are present, one equigranular and the other porphyritic. The two varieties differ in radioactivity as well as in texture.

The porphyritic facies is a massive, light pink to light brownish-gray rock that contains orthoclase, plagioclase, and quartz phenocrysts as large as 1 inch in diameter in a coarse- to medium-grained matrix. Its background radioactivity ranges from 0.20 MR/HR over weathered rock to 0.30 MR/HR over fresh rock.

The equigranular quartz monzonite is light-gray, medium grained, and is locally iron stained. Background radioactivity ranges from 0.015 MR/HR to 0.022 MR/HR.

The metasedimentary rocks of the area are slate, argillite, phyllite, dolomitic limestone, limestone and quartzite. The lower part of this series of metamorphic rocks is called the Deer Trail group. The lowermost unit of the group is predominantly an argillite, for which the name "Togo formation" has been proposed. It is the Togo formation which is the uranium host rock that lies in contact with the Loon Lake granite.

The dominant structural feature is a northeast-trending anticlinal fold involving all the pre-intrusive rocks. The anticline is about 30 miles long and near its southwest end is overturned to the west. Faults and minor folds are superimposed on the major structure in a number of places. Small dikes and sills of aplite, pegmatite, hornblende lamprophyre, and felsic rock of unusual composition are present in many places; the first two types intrude both the igneous and metasedimentary rocks, whereas the latter types intrude only the metasedimentary rocks.

At the Midnite mine ore bodies occur at or near the contact of the porphyritic phase of the quartz monzonite and schistose or spotted phyllite along a zone nearly 2 miles long. The ore bodies range in size from about 150 to 550 feet in length and from about 15 to 60 feet in width; they generally are surrounded by a low-grade halo and are most commonly found where the dip of the contact has flattened. The deposits are also controlled by systems of tight fractures and faults that cut the contact, and the rock along these faults and fractures is bleached where it carries the uranium (Paul Weis, oral communication).

Although some of the ore bodies start at the bedrock surface, others do not and are truly "blind" deposits. Over many of the blind deposits no radioactivity or geochemical anomalies were detected. There do not appear to be any structural or lithologic differences between the barren rock away from ore bodies and the immediate host rock; however, the background radioactivity over the shallower ore zones is three to five times greater than the average. The average background radioactivity over the metasediments is about 0.020 MR/HR.

Local Geology

In sections 10 and 15, the area included in the Blue Mountain project, the rocks are metasediments and porphyritic quartz monzonite. Within the area of exploration the metasediments consist largely of schist, quartzite, and argillite into which dikes of both mafic and felsic composition have been intruded. Overburden which ranges up to 15 feet thick covers the contact and makes its exact location difficult to determine.

Surface investigations with Geiger counter and scintillometer failed to reveal any zones of radioactivity above background; however, a great many soil samples were taken by the applicant and significant trace anomalies were found. Subsequent bulldozing and core drilling under the contract in section 10 (pl. 1) failed to reveal any mineralized material.

The Operator, while bulldozing on his own account, disclosed a mineralized fault zone in section 15 (fig. 3). The fault zone contained visible autunite in a tongue of altered schist. The alteration is seen as a tongue of bleached material with the bleaching originating at the fault and following the bedding outward for about 2 feet. The bleached schist is similar to the uranium-bearing bleached material at the Midnite mine. The autunite was found at a point about 350 feet westerly and about 150 feet vertically above the surface trace of the contact. A program was laid out to explore this area but the work was never started.

THE PROJECT

Blind ore bodies of significant sizes were found at the Midnite mine along the contact between metasediments and granite and beneath surfaces which showed no radioactivity anomalies. Soil samples taken by the Operator down slope from the surface trace of the contact in the Midnite mine area and in sections 10 and 15 showed trace anomalies of uranium.

The radioactivity anomalies from sections 10 and 15 were found to be greater than those from the Midnite mine area, and as the geologic environment of the two areas is similar it was concluded that the chance of making a significant discovery was good.

The project as originally proposed by the applicant on February 27, 1957 included 400 hours of bulldozing to construct access roads, prepare drill sites, and excavate trenches. The trenches were to outline the contact between the quartz monzonite and the metasediments where all the presently known deposits of any importance have been found. Following the trenching the proposal outlined 44 core drill holes averaging 200 feet in depth. The applicant estimated the project would cost $81,650, including supervision, consulting fees, assaying and all other related costs.

In a letter dated April 19, 1957 the applicant proposed to reduce the bulldozing hours from 400 to 160 and include a geophysical survey that was estimated to cost $3,600. This proposed change in the program reduced the total estimated cost $600, to a new total of $81,050.

Two conferences were held with the applicant to discuss the proposed program. It was concluded that because of the shallow cover the contact could be located more positively and more economically by 7 trenches than by the combined trenching and geophysical surveying proposed by the applicant. The applicant's proposed drilling program was reduced from a total of 44 holes to 18 holes. The distance between holes was based on the size of ore bodies that might be expected in view of present known ore bodies in the area. Ten holes, spaced at 250-foot intervals, were outlined to be drilled with collar positions 50 feet from the contact and in the metasediments, thus exploring 2,400 feet along the contact. Eight additional holes were outlined to be drilled at four of the trench sites excavated along the strike of the contact. At each designated site, one hole was to be drilled 50 feet from the contact on the quartz monzonite side and one hole 150 feet from the contact on the metasediment side of the contact. Approximate locations of trenches and drill holes are shown on plate 2.

The above modified program, recommended by the Field Team, was designated as Stage I in the exploration project contract. A second stage, allowing access roads, preparation of drill sites and 2,000 feet of drilling, contingent upon the results of Stage I work, was also included in the contract.

Work was started July 31, 1957 with the construction of about 7,000 feet of access road. This initial access road was completed August 9, 1957 after 35 bulldozer hours had been expended. During September 1957 the remainder of the 60 bulldozer hours allowed for access roads was utilized, completing the access road construction. Soil samples were taken at 50 stations along the access road. The geochemical analyses of the samples did not show any appreciable anomaly.

Excavation of trenches was started August 9, 1957. The 7 trenches allowed by the contract were completed by September 16, using a total of 80 bulldozer hours. The trenches averaged about 200 feet in length and varied from 3½ to about 7 feet in depth. The contact zone was exposed in all of the 7 trenches and was also exposed in four places by access road excavation; thus, the course of the contact was well determined.

The trenching completed was as follows:

Trench No.	Length	Depth	No. hours
1	150'	6-10'	9
2	50'	6'	3
3	100'	4-10'	6
4	300'	5-12'	18
5	400'	5'	24
6	250'	5'	15
7	175'	3-6'	5
Total			80 hours

The contact was found to dip much steeper than was previously thought. Where the contact trends northeasterly the dip is in the range of 45° westerly and where it trends easterly or northerly the dip is in the range of 70° northerly or westerly. Several basic dikes and at least one aplite dike were exposed in the metasediments, but their attitudes could not be determined.

The Operator started the drilling phase of the project during August 1957 as soon as the first drill site could be located. Amendment No. 1, dated November 27, 1957, provided for a change of location of the drill holes. Seven holes were drilled having an aggregate total depth of 1,432 feet. Drilling, driving and setting standpipe accounted for 170.5 feet of the total footage; the remaining 1,265.5 feet was core drilled. The contact was cut in 4 of the 7 holes at depths varying from 73 to 336 feet.

The diamond drilling completed was as follows:

Hole No.	Total depth ft.	Core drilled ft.	Stand-pipe ft.	Cementing ft.	Standby hrs.	Contact zone depth ft.
1	154	154	--	10	--	132
2	102	62	40	--	--	none
3	111	91	20	--	--	73
4	301	289	12	40	--	280
5	362	316.5	45.5	--	--	336
6	200	160	40	15	--	none
7	202	189	13	53	24	none
Total	1432	1261.5	170.5	118	24	

No significant radioactivity was measured in the 5 holes probed. Radiometric measurements could not be registered in 2 holes because of water conditions; however, the cores from none of the holes showed any significant radioactivity.

The drilling phase of the contract was stopped in November 1957 and the contract was officially terminated by agreement dated July 11, 1958 and effective as of November 30, 1957. The Termination Agreement includes a pseudo-certification.

During the trenching phase of the exploration project the Operator was doing some prospecting in sec. 15, T. 29 N., R. 38 E., W.M., on his own account. Section 15 joins section 10 on the south. The Operator proposed what was thought by the Government to be an overly-ambitious program to explore the encouraging showings on section 15. The Operator's proposed program included trenching, core drilling, and related costs and he estimated the total cost would be $227,288.71. After discussion with Government representatives the Operator submitted a modification of the proposed program that he estimated would cost $34,831.02.

After a field examination a small program including trenching and core drilling, that was estimated to cost $8,014.60, was recommended. This program was approved and made a part of the contract as Stage III in Amendment No. 2, effective as of December 19, 1957. However, Stage III was never started and the contract was terminated by mutual agreement effective November 30, 1957.

The exploration project contract work failed to disclose any worthwhile ore occurrences; therefore, no attempt was made to estimate an ore reserve.

Summary of Factual Data

The accepted units of work and costs are:

Stage I

	Units authorized	Units approved	Unit cost	Total cost
Bulldozer work:				
Access roads	60 hrs.	60 hrs.	$ 17.50/hr.	$ 1,050.00
Trenching	80 hrs.	80 hrs.	17.50/hr.	1,400.00
Drill site preparation	40 hrs.	34 hrs.	17.50/hr.	595.00
Transporting dozer	100 miles	100 miles	1.00/mi.	100.00
Diamond drilling:				
Core drilling	3,000 ft.	1,261.5 ft.	6.00/ft.	7,569.00
Driving standpipe	100 ft.	100 ft.	7.50/ft.	750.00
Cementing & redrilling or reaming & casing	100 ft.	100 ft.	3.00/ft.	300.00
Standby time	34 hrs.	24 hrs.	7.50/ft.	180.00
Supervision	4 mo.	4 mo.	600.00/mo.	2,400.00
Consulting geologist	20 days	8-7/8 days	50.00/day	443.75
Core boxes	300 boxes	55 boxes	1.00/ea.	55.00
Gasoline	300 gal.	300 gal.	0.36/gal.	108.00
Equipment depreciation	4 mos.	4 mos.	33.33/mo.	133.32
~~Payroll taxes~~	~~$357.60~~	~~$357.60~~	~~$357.60~~ ~~1/~~	~~357.60~~
Total				~~$15,441.67~~
1/ Deleted by audit				~~- 357.60~~
				$15,084.07

Stages II and III were not started.

Total amount of contract	$53,972.00
Government's share at 75 percent	40,480.00 (rounded)
Total amount expended	15,084.07
Government's participation	11,313.05
Total amount unexpended	38,887.93
Government's share unexpended	29,165.95
Net value of production during contract period	none

The Government acquired no equity in operating equipment or in materials and supplies used on the project.

Discussion of Conclusions

Steep slopes and hard rock on the uphill side made it difficult to doze trenches normal to the slope; however, by dozing some of the trenches at about 35 degrees to the slope of the terrain the Operator was able to expose the contact adequately to select drill hole locations at all trench sites.

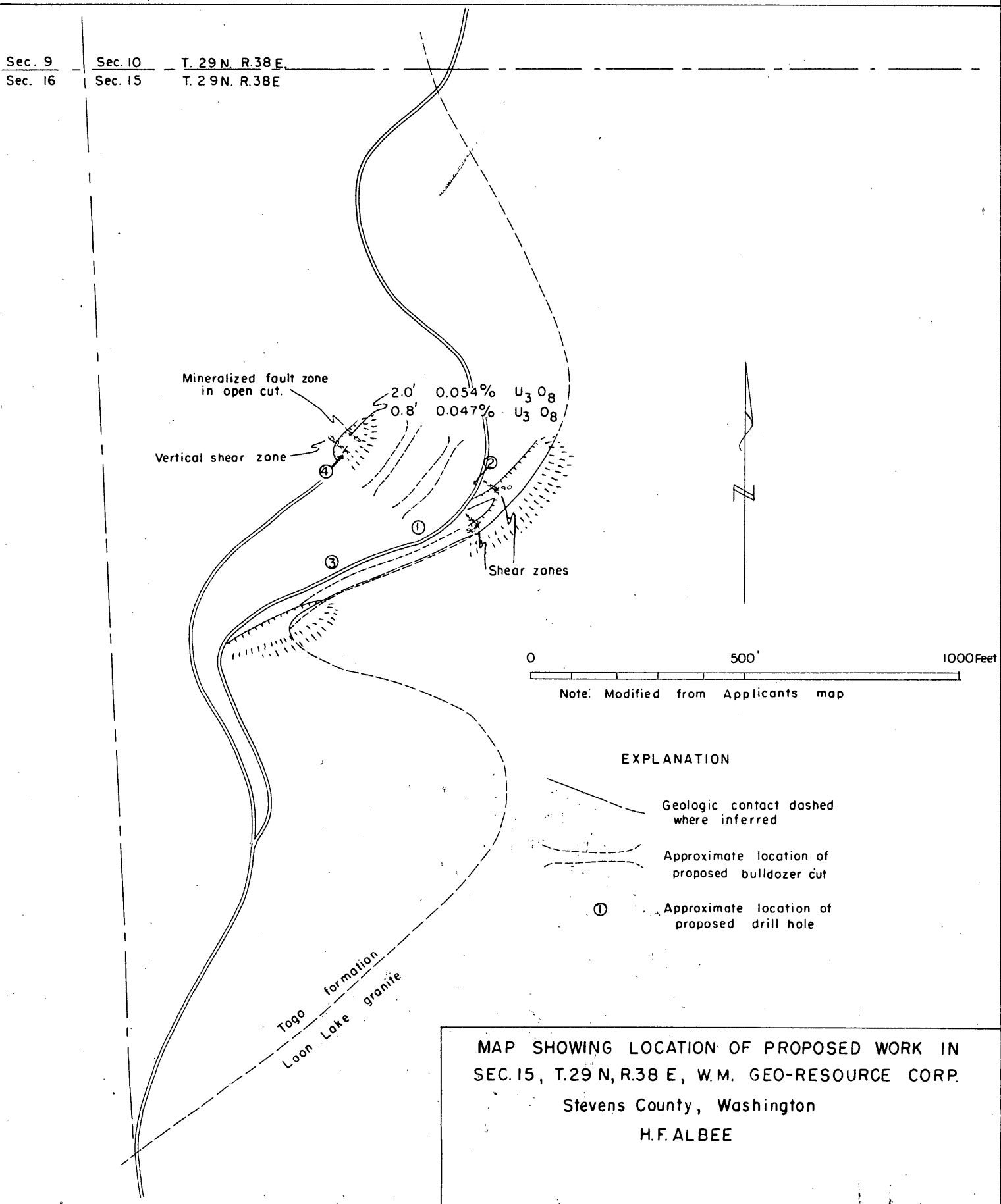
The core drilling for the most part was directed to test the Togo formation (metamorphic rocks of argillite, phyllite, schist and quartzite) for uranium minerals. One of the seven holes was drilled entirely in the Loon Lake granite for a check on this formation. Core recovery in the more competent rocks was very good (better than 90 percent). However, in the sheared and broken sections of the formation where ore deposits are more likely to be found, the core recovery was for the most part less than 50 percent. When core recovery was poor the Operator attempted to get the best possible data by careful testing of cuttings and sludge. A bentonite drilling mud was tried with little success and the Operator had to resort to cementing and/or casing the badly sheared and broken rock.

Although the Operator was administratively competent he was handicapped by the lack of financing and was unable to complete the project. The company was unsuccessful in their attempt to raise sufficient financing by stock offerings and agreements with other companies.

The results obtained from the work completed showed no significant amount of uranium ore; however, the possibility that a worthwhile deposit would have been found had the contract work been completed still remains, although the chance is somewhat less. Further exploration of the contact zone might disclose commercial amounts of uranium ore.

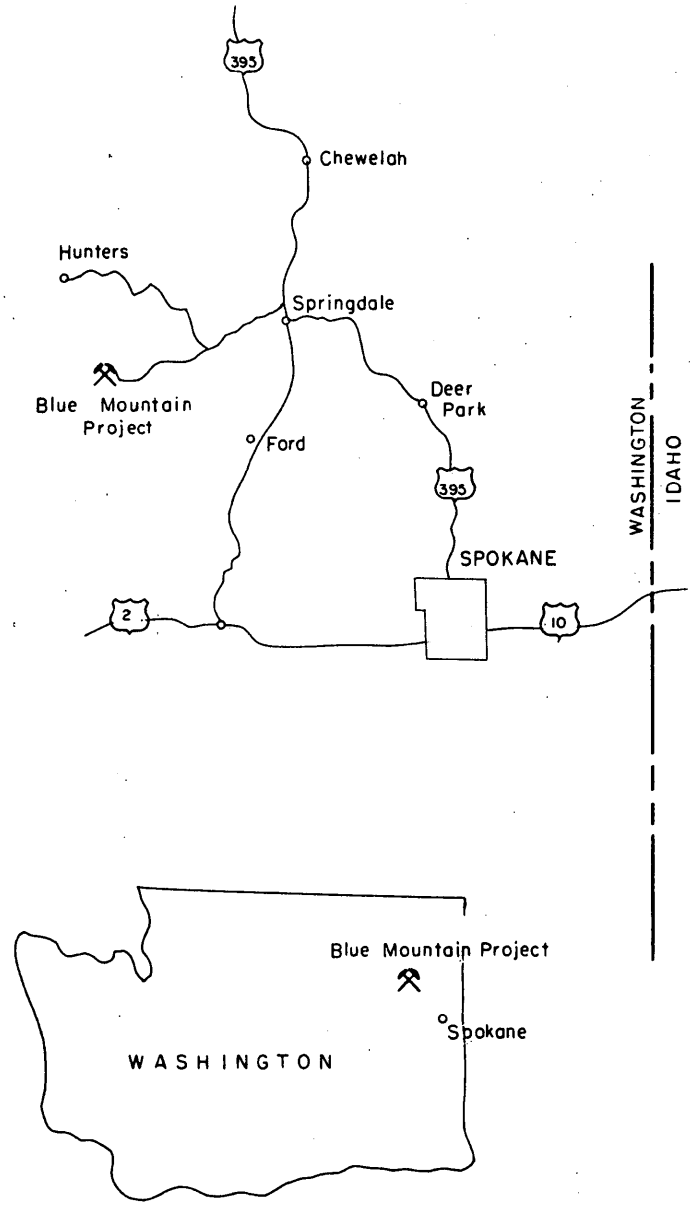
Geochemical sampling limited to alluvial dispersion trains indicated the presence of uranium anomalies. The completed project work failed to prove or disprove the value of this method of geochemical exploration in this area. The limited amount of trenching and drilling did not disclose the origin of the anomalies.

Enclosures
Distribution:
- OME (3)
- USBM (5)
- AEC (2)
- USGS (SRO)
- Docket
- Albee



MAP SHOWING LOCATION OF PROPOSED WORK IN SEC. 15, T. 29 N, R. 38 E, W.M. GEO-RESOURCE CORP.
Stevens County, Washington
H.F. ALBEE

FIG. 3

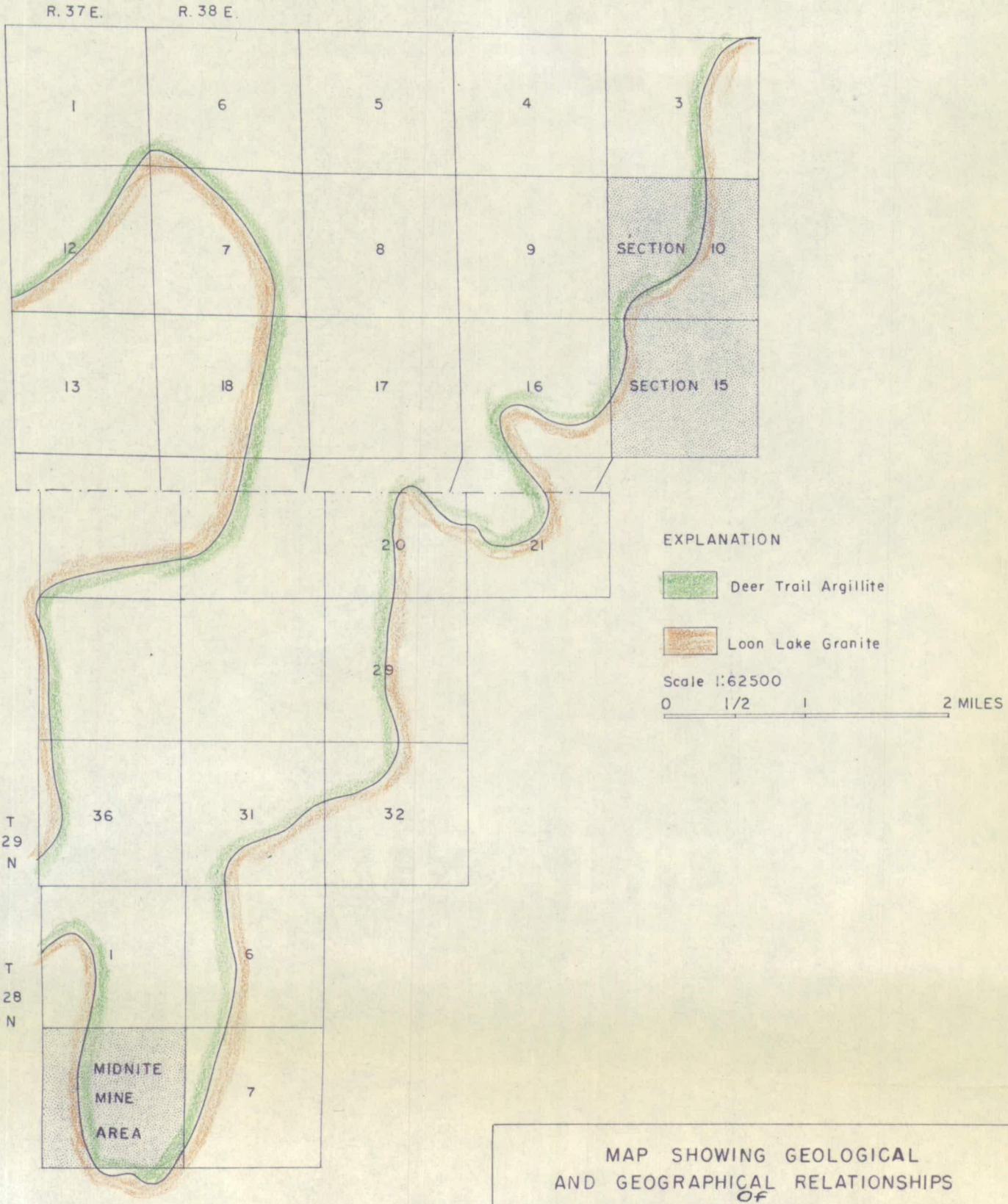


INDEX MAP
GEO-RESOURCE CORPORATION
BLUE MOUNTAIN PROJECT
Stevens County, Washington

FIG. 1

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 5 1958

DATE	INITIALS	CODE



MAP SHOWING GEOLOGICAL AND GEOGRAPHICAL RELATIONSHIPS OF BLUE MOUNTAIN PROJECT WITH THE MIDNITE MINE AREA

FIG. 2

Geology by Fred O. Jones
Map by G.B. Weaver, 30 JAN. 1957

So. 157 Howard Street
Spokane 4, Washington

November 20, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 24 1958

DATE	INITIALS	CODE
11/24	C	220
11/24	[illegible]	800
	[illegible]	700

Geo-Resource Corporation
1215 E. Thurston Avenue
Spokane 4, Washington

Re: Docket No. DMEA-4071 (Uranium)
Geo-Resource Corporation
Blue Mountain Mine
Stevens County, Washington
Contract No. Idm-K1114

Gentlemen:

Enclosed for your information and files is a copy each of Report of Review and Schedule of Exceptions dated November 6, 1958, for the period August 1957 to January 1958, inclusive, covering a project at the Blue Mountain Mine.

The report discloses that there is a balance due you of $31.79. This amount has been scheduled for payment and you should receive a check in a few days.

Sincerely yours,

A. E. Weissenborn
Executive Officer, OME
Field Team Region I

Enclosure

cc: OME (3) ✓
USBM (2)
USBM(AD)

DMEA FORM 0

REFERENCE SLIP

REV. 12-56 DEFENSE MINERALS EXP ATION ADMINISTRATION

TO:

		INITIALS	DATE
1.	110		12/1
2.	700		12/2
3.			
4.			
5.			
FROM:			

FOR: Check items for action desired

____ Action ____ Reply for signature of _____

____ Approval ____ Investigate

____ Comment ____ Recommendations ____ Surname

____ Conference ____ Rewrite ____ Signature

____ Instructions ____ Your information ____ File

REMARKS:

INT.-DUP. SEC., WASH., D.C.

M25803

Standard Form No. 1034 Revised
Form prescribed by
Comptroller General U. S.
September 1, 1950
(Gen. Reg. No. 4, Supp. No. 11)

RECEIVED
NOV 28 1958
O.M.E.

PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

D. O. Vou. No. .....

Bu. Vou. No. 2252

U. S. .....
(Department, bureau, or establishment)

Voucher prepared at Spokane, Washington 11/20/58
(Give place and date)

THE UNITED STATES, DR.

Payee's Account No. Idm-E1114

To Geo-Resource Corporation
(Payee)

1215 E. Thurston Avenue Spokane Washington
(Address) (City) (State)

PAID BY

(For use of Paying Office)

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary) Discount Terms	QUANTITY	UNIT PRICE Cost	UNIT PRICE Per	AMOUNT Dollars	AMOUNT Cts.
	November 1957	Funds withheld from Voucher No. 2088 dated December 11, 1957, adjusted to audit				31	79
PAYMENT: Complete ☐ Partial ☐ Final ☐		FINAL PAYMENT					
		Use continuation sheet(s) if necessary					
Shipped from	to	Weight	Government B/L No.		Total	31	79

I certify that the above bill is correct and just and that payment therefor has not been received.

(Sign original only)

Date ..... *Payee .....
(This certificate not required when a like certificate is made by payee on attached bill or bills)

Per ..... Title .....

(Payee must NOT use this space)

Differences .....

Account verified; correct for 31 79

(Signature or initials) D.L.

Contract No. Date Req. No. Date Invoice Rec'd.

Pursuant to authority vested in me, I certify that this account is correct and proper for payment.

† Approved for $ .....

By .....

Title .....

SIGN ORIGINAL ONLY

† .....
(Authorized Certifying Officer)

Title .....

Date .....

THE REVERSE OF THIS FORM MUST BE EXECUTED WHEN PURCHASES ARE MADE OR SERVICES SECURED WITHOUT WRITTEN AGREEMENT IN ANY FORM

ACCOUNTING CLASSIFICATION (For completion by Administrative Office)

Appropriation, limitation, or project symbol	Appropriation title	Limit'n. or Proj't. Amount	Appropriation Amount

Allotment symbol	Amount	Obligations liquidated	COST ACCOUNT Symbol	COST ACCOUNT Amount	OBJECTIVE CLASSIFICATION Symbol	OBJECTIVE CLASSIFICATION Amount

Paid by { Check No. ..... dated ....., 19....., for $..... } on Treasurer of the United States in favor of payee named above.
{ Cash, $....., on ....., 19..... Payee .....
(Sign original only)

Per .....

Title .....

* When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary", or "Treasurer", as the case may be.

† If the ability to certify and authority to approve are combined in one person, one signature only is necessary; otherwise the approving officer will sign on the line below "Approved for $.....", and over his official title.

16—22900-3

METHOD OF OR ABSENCE OF ADVERTISING

METHOD OF ADVERTISING

1. Advertising in newspapers Yes ☐ No ☐
2. (*a*) Advertising by circular letters sent to ..... dealers.
   (*b*) And by notices posted in public places Yes ☐ No ☐.

   (If notices were not posted in addition to advertising by circular letters sent to dealers, explanation of such omission must be made below.)

ABSENCE OF ADVERTISING

3. Without advertising, under an exigency of the service which existed prior to the order and would not admit of the delay incident to advertising.
4. Without advertising in accordance with .....
5. Without advertising, it being impracticable to secure competition because of .....

.....

.....

.....

.....

(Here state in detail the nature of the exigency or circumstances under which the securing of competition was impracticable under 3 and 4)

NOTE.—The above form "Method of or Absence of Advertising" is to be used when purchases are made or services secured under proper authority without written agreement in any form. In case of a written agreement (formal contract, proposal, and acceptance, or less formal agreement) Standard Form No. 1036—Revised should be used for abstracting the method of or absence of advertising and award of contract. (See General Regulations No. 51, as amended.)

16—22900-2 ☆ U. S. GOVERNMENT PRINTING OFFICE : 1950—O-75806

1201 N. Division St.
Spokane 17, Washington

November 17, 1958

EXTRA COPY
O. M. E.
RECEIVED NOV 26 1958
DATE | INITIALS | COPY
11/2 | FMM | 700

Mrs. Dorothy Long, Certifying Officer
OME Field Team, Region I
1201 N. Division Street
Spokane 2, Washington

Re: Docket No. RMEA-6871 (uranium)
Geo-Resources Corporation
Blue Mountain Mine
Contract No. IAm-Ki114

Dear Mrs. Long:

The work completed under the contract was done to the satisfaction of the Government. The contract was terminated by mutual agreement on July 11, 1958. A final report evaluating the results of the exploration program has been presented by the Operator and accepted by the Executive Officer.

The Government has no interest in supplies or equipment purchased for use on the project.

A pseudo-certification is incorporated in the Termination Agreement.

A final Report of Review dated November 6, 1958 by OME Auditor George Meyer has been received.

As all contract requirements have been met, it is requested that final settlement of our account with the Operator be made.

Sincerely yours,

A. E. Weissenborn, Exec. Officer
OME Field Team, Region I

cc: OME (2)
USGS (2)
Contract Admin. & Audit Div. (2)
Docket

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11/10	G. McCarthy	800
11/10	Falkenth	800
11/10	C	220
11/13	[illegible]	700

Mr. George Mavor
OME Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

NOV 10 1958

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Contract No. Idm-E1114

Dear Mr. Mavor:

Your Report of Review covering the referenced project is acceptable and normal distribution is authorized.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers
Contract Administration
and Audit Division

GMcCarthy/GMcC
November 10, 1958

cc: Docket
Director's Reading File
Mr. Chambers

8623

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 24 1958

DATE	INITIALS	CODE
11/24	C	220
11/24	[illegible]	800
"	[illegible]	700

1201 N. Division St.
Spokane 17, Washington

November 17, 1958

Mrs. Dorothy Long, Certifying Officer
OME Field Team, Region I
1201 N. Division Street
Spokane 2, Washington

Re: Docket No. DMEA-4071 (uranium)
Geo-Resource Corporation
Blue Mountain Mine
Contract No. Idm-X1114

Dear Mrs. Long:

The work completed under the contract was done to the satisfaction of the Government. The contract was terminated by mutual agreement on July 11, 1958. A final report evaluating the results of the exploration program has been presented by the Operator and accepted by the Executive Officer.

The Government has no interest in supplies or equipment purchased for use on the project.

A pseudo-certification is incorporated in the Termination Agreement.

A final Report of Review dated November 6, 1958 by OME Auditor George Mavor has been received.

As all contract requirements have been met, it is requested that final settlement of our account with the Operator be made.

Sincerely yours,

A. E. Weissenborn, Exec. Officer
OME Field Team, Region I

cc: OME (2)✓
USGS (2)

1201 N. Division St.
Spokane 2, Washington

October 23, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 28 1958

DATE	INITIALS	CODE
10/28	C	220
	Murphy	700

CERTIFIED MAIL

Mr. George Mavor, OME Auditor
Room 420, Custom House
555 Battery Street
San Francisco, California

Re: Docket No. DMEA-4671 (uranium)
Geo-Resource Corporation
Blue Mountain Mine
Contract No. Idm-E1114

Dear Mr. Mavor:

Pursuant to recent instructions, we are transmitting the following material which you will need to complete your audit on the above-named contract:

1. Memorandum from Field Team, Region I, requesting final audit of the account.
2. Contract and Correspondence File (Includes Annex I, Exhibit "A", Amendments Nos. 1 and 2, and Termination Agreement)
3. Voucher File (MF-104's and 104A's, with attachments)
4. File of pre-audit papers prepared by Mr. C. A. Turner

The sum of $300.00 was withheld pending resumption of work; however, work was not resumed and the contract was terminated.

Sincerely yours,

Dorothy F. Long
Authorized Certifying Officer

cc: OME (3)
USGS (2)
USBM (AD)

ORIGINAL FILE COPY
O. M. E.
RECEIVED OCT 28 1958

DATE	INITIALS	CODE
10/28	C	220
	Murphy	TCC

1201 N. Division St.
Spokane 2, Washington

October 16, 1958 — Dictated 10/23/58

Mr. George Maver, OME Auditor
Room 420, Custom House
555 Battery Street
San Francisco 11, Calif.

Re: Docket No. DMEA-4671 (uranium)
Geo-Resource Corporation
Blue Mountain Mine
Stevens County, Washington
Contract No. Idm-X1114

Dear Mr. Maver:

The referenced contract was terminated by mutual agreement on July 11, 1958, effective as of November 30, 1957.

The number of units of work satisfactorily completed by the Operator and accepted by the Field Team are:

Stage I	Unit Cost	Authorized	Completed
Bulldozer work:			
Access roads	$17.50/hr.	60 hrs.	60 hrs.
Trenches	17.50/hr.	80 hrs.	80 hrs.
Drill site preparation	17.50/hr.	40 hrs.	34 hrs.
Transporting dozer	1.00/mile	100 miles	100 miles
Diamond drilling:			
Core drilling	6.00/ft.	3,000 ft.	1,261.5 ft.
Driving standpipe	7.50/ft.	100 ft.	170.5 ft.
Cementing and drilling out or reaming and casing	3.00/ft.	100 ft.	118.0 ft.
Standby time	7.50/hr.	24 hrs.	24 hrs.
Supervision	$600/mo.	4 mo.	4 mo.
Consulting geologist	$ 50/day	20 days	8-7/8 days
Stage II		none	none
Stage III		none	none

The Operator's final engineering and geological report was received on September 21, 1958. This report meets the requirements of Article 7(c) of the contract.

A pseudo-certification is incorporated in the Termination Agreement.

The total amount paid to date to the Operator is $11,261.26.

A Report of Review in lieu of a final audit is in order and requested.

By Field Team, Region I

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: OMK (3)
USGS (2)
USBM (AB)

So. 157 Howard Street
Spokane 4, Washington

October 1, 1958

10/6 C 220
10/8 EED 800
~~Murphy 700~~

Mr. William D. Weaver, President
Geo-Resource Corporation
1215 E. Thurston
Spokane, Washington

Re: Docket No. DMEA-4671 (Uranium)
Blue Mountain Mine
Stevens County, Washington
Contract No. Idm-K1114

Dear Mr. Weaver:

This will acknowledge your letter of September 18, 1958, with which you returned the signed copies of a termination agreement and one copy of a final report.

The final report, along with the maps and drill logs already received, is considered as acceptable and no further information is required of you.

Sincerely yours,

A. E. Weissenborn
Executive Officer, OME
Field Team Region I

cc: OME (2)
USBM(2)
USBM(AD)
Albee

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 6 1958

DATE	INITIALS	CODE
10/6	C	220
10/8	CEF	800
"	Murphy	700

October 1, 1958

Mr. George C. Selfridge,
Chairman, Operating Committee, OME
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Blue Mountain mine
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Selfridge:

Enclosed are the original and one copy of the Operator's final report on the referenced project. Drill logs and up-to-date maps showing the completed work were submitted with the Operator's narrative reports. Additional copies would add nothing to the information already in our files; therefore, we consider this report acceptable under the terms of the contract.

Also enclosed are the Government and Audit copies of the Termination Agreement. Although no discovery was made, a pseudo-certification is incorporated in the Termination Agreement.

By Field Team Region I

A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew
Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures as above

cc: USBM (2)
USBM(AD)
Albee

OPR'S FINAL REPORT

COPY COPY

DMEA

TELEPHONE
MA 4-9654

GEO-RESOURCE CORPORATION
528 HUTTON BUILDING
SPOKANE 4, WASHINGTON

CABLE ADDRESS
GEORESCO

18 Sept. 1958

Mr. G. Agnew

Re: #I.D.M. - E114
DMEA-4671

Dear Sir:

Enclosed please find the signed copies of the termination agreement for the above contract, and the final report.

Since our last report for the 1957 season was our final one, and no further obligations have been incurred, please inform me as to whether or not you require additional information. If so, please tell me specifically what is required in your next communication.

Very Truly Yours,

/s/ WM. D. WEAVER

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 6 1958
DATE | INITIALS | CODE

GEOLOGIC EVALUATION

Section 10, Township 29 N., Range 38 E.

Blue Mountain, Stevens County, Washington

by

Fred O. Jones

Introduction

The following report summarizes geologic and geochemical studies conducted in search of commercial uranium mineralization on the Blue Mountain property (Section 10, T. 29 N., R. 38 E.) in Stevens County, Washington. The studies were made during the field seasonsof 1956 and 1957 by the writer with the assistance of George B. Weaver. Laboratory analyses of soils were performed by Donald D. Johns and Donald L. Merrick.

Geology and Geochemistry

The Blue Mountain property lies in the Spokane Indian Reservation Uranium district just north of the reservation boundary.

The land is situated in a broad belt of deformed units of the Togo formation which has been intruded by a granitic batholith, known as the Loon Lake granite. Erosion, subsequent to the intrusion and elevation of the land mass, has produced a complex pattern of topography and surface rock exposures. In some areas, outcropping rocks are slaty argillite, phyllite, schist and quartzite, while in other areas they are granite and quartz monzonite. The metamorphic rocks of argillite, phyllite, schist and quartzite are the older rocks belonging to the Pre-Cambrian series. The granitic and quartz monzonite rocks which were intruded into the metamorphics are younger and of Cretaceous age. (Becraft, G.E. and Weis, P.L., 1957).

The Midnite Mine of the Newmont Mining Corporation is in the contact zone between the Loon Lake granite and the Togo formation, In this

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SEP 21 1958
U. S. G. S.
SPOKANE, WASH.

mine, the mineralization and ore bodies occur principally in sheared and fractured zones adjacent to the contact in the Togo formation. The Blue Mountain property lies seven miles northeast of the Midnite Mine.

It was discovered that soil samples in alluvial dispersion trains downslope from the granite-argillite contact in Section 10 contained significant anomalies of uranium. In order to have a basis for comparison, permission was obtained from the Newmont Mining Company to take similar samples in the Midnite Mine area. The following is a comparative summary showing the results from the Midnite and Section 10. Only samples taken in a similar geologic environment are included in this summary, and, as a consequence, it does not include many samples of colluvium ~~shown on the map~~ which were taken for other purposes.

	Total Samples	Percent Showing Anomalies	Average ppm of all samples	Average ppm of samples showing anomalies
Midnite Mine Area	69	62	13	21
Section 10	150	88	37	43

These geochemical anomalies of significant magnitude in Section 10 are considered favorable. The fact that the trace mineralization, in every case, lies down hill from the granite-argillite contact suggests that buried zones of mineralization might exist throughout much of the contact length.

Physical Exploration

The property was explored during the summer and fall season of 1957 with seven bulldozer trenches and seven diamond drill holes. The bulldozer trenches opened the contact between the Togo formation and the granite and provided the attitude of the contact so that drill hole sites could be selected. The positions of the trenches and drill holes are shown on the attached Blue Mountain Project map. Core drilling was concentrated in the Togo formation. However, drill hole #2 was entirely

in granite. Detailed logs of the holes are to be found in progress reports. In all of the trenches and drill holes, no evidence of commercial mineralization was discovered. The rocks along the contact are all moderately fractured and deformed, but no major cross structures were opened which might have pointed the way to ore bodies.

Conclusions

1. The results of the physical exploration were completely negative; no indications of commercial mineralization were discovered.
2. The borings and trenches do not provide a satisfactory answer regarding the origin of the geochemical anomalies found in the soil dispersion trains downslope from the contact zone.
3. More complete exploration of the contact zone along the surface and at depth might reveal concentrations of uranium minerals in commercial quantities.
4. Additional research is needed to determine whether trace amounts of uranium in alluvial dispersion trains may be used successfully as prospecting tools.

Fred O. Jones

Fred O. Jones

So. 157 Howard Street
Spokane 4, Washington

September 16, 1958

9-22 C 220
9/22 800
~~[illegible]~~ 0

Mr. William D. Weaver, President
Geo-Resource Corporation
1215 E. Thurston
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Blue Mountain Mine
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Weaver:

We have not yet received a reply to our letter of July 23, 1958, with which we sent you the original and four copies of a Termination Agreement in accordance with your request of June 2, 1958.

If the agreement does not meet with your approval, please return to this office all copies unsigned. If it is satisfactory, please sign all copies, retain the one marked "Operator's Copy" and return the other four copies.

Your attention is again called to Item 3 of the agreement concerning the rendering of the final report and final account, and to Item 4 which preserves the Government's rights respecting percentage royalty and the right to recover any overpayment. As we mentioned in our letters of June 6 and July 23, we cannot release any of the $300 currently withheld until we receive five copies of an acceptable final report. When we receive this, an audit will be made and then any funds due your corporation will be released.

Sincerely yours,

Wing G. Agnew
Acting Executive Officer
DMEA, Region I

cc: DMEA (2)
USBM (2)
USBM(AD)
Albee

No. 137 Howard Street
Spokane 4, Washington
July 23, 1958

7-28 C 220
7/28 800
7/29 700

Mr. William D. Weaver, President
Geo-Resource Corporation
1215 E. Thurston
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Blue Mountain Mine
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Weaver:

In accordance with your request of June 2, 1958, our Washington office has prepared the original and four copies of a Termination Agreement, which are enclosed. If you find the agreement in order, will you please sign all copies, retain that copy marked for the Operator, and return the rest to this office. If it does not meet with your approval, please return all copies, unsigned, to this office with your comments.

Your attention is called to Item 3 of the agreement concerning the rendering of the final report and final account, and to Item 4 which preserves the Government's rights respecting percentage royalty and the right to recover any overpayment. As we mentioned in our letter of June 6, we cannot release any of the $300 currently being withheld until we receive five copies of an acceptable final report. When we receive this, an audit will be made and then any funds due your corporation will be released.

By Field Team, Region I

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing C. Agnew, Member
U. S. Bureau of Mines

Enclosures
[illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

July 18, 1958

8/4 J.G. 225
4 Cole 100
Fel 110
8/5 800
~~Fel~~ 700

MEMORANDUM

To: DMEA Field Team, Region I

From: G. G. Waddell, Mining Engineer, Bureau of Mines

Subject: Final inspection report, Docket No. DMEA-4671 (uranium), Geo-Resource Corporation, Stevens County, Washington, Contract No. Idm-E1114

The final inspection of the project was made on May 16, 1958. The Operator did not start the exploration work as provided for by Amendment No. 2. In a letter to the Field Team, dated June 2, 1958, Mr. W. D. Weaver, president, stated that the company was unable to finance their share of the remaining exploration program and requested that the contract be terminated.

No significant uranium mineralization was discovered by the project work. The results were very discouraging; however, less than half of the Stage I drilling was completed.

All except two holes were radiometrically logged but no significant radioactivity was detected. Two of the drill holes are not in the exact position prescribed by the contract, due to the change in geologic interpretation and topographic irregularities, but they are acceptable.

A pseudo-certification is incorporated in the Termination Agreement.

The Government has no equity in equipment used on the project.

No ore was mined or shipped during the contract period.

Work completed consists of the following:

Bulldozing

Access roads to drill sites and dozer cuts	60 hours
Drill sites (prepared 7 + drill sites)	34 hours
Trenching to expose contact zone	80 hours

No. 1	150' long	6-10' deep	9 hrs.
2	50'	6'	3
3	100'	4-10'	6
4	300'	5-12'	18
5	400'	5'	24
6	250'	5'	15
7	175'	3-6'	5
			80

All trenches succeeded in exposing the contact zone.

Diamond Drilling

Hole No.	Total depth ft.	Core drilled ft.	Stand-pipe ft.	Cementing ft.	Standby hrs.	Contact zone depth ft.
1	154	154	—	10	—	132
2	102	62	40	—	—	none
3	111	91	20	—	—	73
4	301	289	12	40	—	280
5	362	316.5	45.5	—	—	336
6	200	160	40	15	—	none
7	202	189	13	53	24	none
Total	1432	1261.5	170.5	118	24	

The contract status is:

Date of contract: July 24, 1957
Termination date: November 30, 1957
Amount of contract: $53,972.00
Amount spent: 15,441.67 (subject to audit)

Stage I	Unit cost	Authorized	Completed
Bulldozer work:			
Access roads	$17.50/hr.	60 hrs.	60 hrs.
Trenches	17.50/hr.	80 hrs.	80 hrs.
Drill site preparation	17.50/hr.	40 hrs.	34 hrs.
Transporting dozer	1.00/mile	100 miles	100 miles
Diamond drilling:			
Core drilling	6.00/ft.	3,000 ft.	1,261.5 ft.
Driving standpipe	7.50/ft.	100 ft.	170.5 ft.
Cementing and drilling out or reaming and casing	3.00/ft.	100 ft.	118.0 ft.
Standby time	7.50/hr.	24 hrs.	24 hrs.
Supervision	$600/mo.	4 mo.	4 mo.
Consulting geologist	50/day	20 days	8-7/8 days
Stage II			
Additional core drilling 2,000 ft. and associated work			none
Stage III			
Additional work on adjoining sec. 15 40 hrs. dozer trenching and 700 ft. core drilling and associated work			none

Galen G. Waddell

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Turner
Waddell

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7-10	Murphy	700
7-10	Kupke	700
7-11	Chamberlin	800
7/11	GCS	130
"	Johnson	110
"	Whitesides	100
7/14	C	220
		700

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

JUL 14 1958

Re: Docket No. DMEA-4671 (Uranium)
Contract No. Idm-E1114
Geo-Resource Corporation
(formerly Mine Consultants, Inc.)
Sec. 10, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

Lamb

Dear Mr. Weissenborn:

Enclosed are the original and four copies of a proposed agreement to terminate the subject contract, signed by the Administrator for the Government. Also, enclosed are two extra copies for Field Team use.

If you and the Operator find the agreement in order, please have an authorized representative of the corporation sign the original and four copies. Thereafter, kindly distribute the copies in the usual manner.

This agreement has been prepared in accordance with your letter of June 6, and a letter, dated July 1, 1958, by Wing G. Agnew, and D. R. MacLaren. The Termination Agreement contains a psuedo-certification to protect the Government's share of the cost of the work completed to date, since in our opinion there is a fair possibility that significant deposits of uranium ore might have been found on the subject property if the work under the contract had been completed.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GCS)

Enclosure
APPROVED:

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

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

FMMurphy/lzm 7-10-58
cc: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

DRAFT
FMMurphy/izm
7-7-58

TERMINATION AGREEMENT

It is agreed this _____ day of _____, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Geo-Resource Corporation, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E1114 (Docket No. DMEA-4671), dated July 24, 1957, as amended, hereinafter called the "Contract," that:

1. Effective April 15, 1958, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.
2. The Government shall contribute only to the allowable costs of work performed prior to April 15, 1958.
3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including the rendering of the final report and final account.
4. The total net amount contributed by the Government is repayable in the form of a percentage royalty on all minerals mined or produced from the land described in Article 2 of the Contract, which the Operator, as principal if the Operator is the producer or as surety if the Operator is not the producer, (for example, if the Operator transfers or fails to retain its interest in the land), shall pay to the Government, in the same manner and amount and for the same period provided in the Contract as if certification of discovery or development had been made, said certification being hereby waived.

5. All rights of the Government respecting percentage royalty and liens to secure the payment thereof (as provided in paragraph 4 herein), reports (including preservation of Operator's records), accounts, audits, and the right to recover any overpayment, are hereby preserved.

6. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract, except as otherwise provided in this termination agreement.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By_____
Administrator, Defense Minerals
Exploration Administration

GEO-RESOURCE CORPORATION

By_____

Title_____

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

So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 3 1958
DATE | INITIALS | CODE
7/3 | C | 220
" | 7 of 700

July 1, 1958

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (uranium)
Geo-Resource Corporation
(formerly Mine Consultants, Inc.)
sec. 10, T. 29 N., R. 38 E., W.M.
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Selfridge:

This is in reply to your letter of June 16, 1958, in which you request data on the results of the work completed under this project and our recommendations regarding certification.

All the work completed was done under Stage I which authorized the bulldozing of access roads, drill sites, and seven trenches normal to and cutting the quartz monzonite-metasediments contact at intervals of about 400 feet, and the diamond drilling of 18 holes aggregating not more than 3,000 feet.

Work was started July 31, 1957, and was discontinued on November 28, 1957 because snow made the roads virtually impassable. Amendment No. 2 authorized a period of recess starting November 28, 1957, and ending not later than April 15, 1958. Work was never resumed and in a letter dated June 2, 1958, Mr. William D. Weaver, President, stated that the Corporation had been unsuccessful in securing further capital to finance its participation in the project and requested that the contract be terminated.

During the active period of the contract the Operator bulldozed seven trenches exposing the contact. However, due in part to irregularities of strike and terrain difficulties, it was impractical to space the trenches at regular intervals of about 400 feet. The locations of the trenches are shown on the accompanying sketch.

Of the authorized Stage I drilling, seven holes ranging in depth from 100 feet to 362 feet and totaling 1,430 feet were completed. The distance between holes 3 and 4 exceeds the authorized maximum by about 35 feet, and the distance between holes 1 and 7 is

about 60 feet less than the minimum. Both of these departures are in part due to topographic irregularities. All other spacings either conform to the contract specifications or are such that had the drilling been completed, intervening holes would have completed a proper space pattern.

Holes 1, 2 and 3 were logged by the Atomic Energy Commission with a calibrated instrument. The highest readings indicated 3 times background in hole 1, from 100 to 120 feet, at which point the hole caved; and twice background in hole 3, at 85 feet. Holes 4 and 5 were not logged. Hole 6 was logged by the Operator with a Babbel probe which registered up to twice background. Hole 7 was logged by the Operator with a Hoffman probe which registered up to 2.5 times background. No uranium minerals were identified by our field examiners in any of the core or cuttings.

On the basis of the results of the completed work there are no grounds for certifying a discovery or development. Neither has the completed work adequately tested the target area.

By Field Team, Region I

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

D. R. MacLaren, Acting Member
U. S. Geological Survey

cc: USBM (2)
USBM (AD)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/13/58	Murphy	700
"	Ellis	700
6/16	GCS	130
"	Johnson	110
"	Weissenborn	100
6/17	C	220
		700

JUN 16 1958

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Contract No. Idm-E1114
Geo-Resource Corporation
(formerly Mine Consultants, Inc.)
Sec. 10, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

Dear Mr. Weissenborn:

This is to acknowledge your letter of June 6, 1958, and the enclosed copy of a letter by the Geo-Resource Corporation, recommending that the subject contract be terminated.

Before terminating the project, we must have sufficient data on the results of the work to justify such a decision. The Field Team should also submit its recommendations with regard to certification.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

Frank D. Lamb

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

FMMurphy/gla
6-13-58
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
FMMurphy

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 12 1958
6/12 C 220
Murphy 130
700

June 6, 1958

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Blue Mountain Mine
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Selfridge:

Enclosed are three copies each of a self-explanatory letter dated June 2, 1958, from the referenced Operator, and our reply.

Under the circumstances we recommend that a mutual termination agreement be prepared.

By Field Team, Region I

A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Thomas E. Howard
for: Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USBM (AD)
Turner
Albee

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 12 1958
DATE

So. 157 Howard Street
Spokane 4, Washington

June 6, 1958

Mr. William D. Weaver, President
Geo-Resource Corporation
1215 E. Thirston
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Blue Mountain Mine
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Weaver:

We are sorry to receive your letter of June 2, 1958 requesting that the DMEA contract be terminated. We have forwarded your letter to Washington.

We cannot release any of the $300 currently being withheld until we receive five copies of an acceptable final report which should include a geological and engineering evaluation of the results of the work completed and a resume of the costs as described in Article 7(c) of your contract. When we receive this, we will have an audit made, after which we will release any funds due your corporation.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (3)
USBM (2)
USBM (AD)
Turner
Albee

GEO-RESOURCE CORPORATION

TELEPHONE
MA 4-9654

1215 E. Thurston
SPOKANE 6, WASHINGTON

GEORESCO
FILE COPY

2 June 1958

DMEA

Executive Officer, Region I
Defense Minerals Exploration Administration
157 S. Howard Street
Spokane, Washington

Dear Mr. Weissenborn,

With reference to the DMEA Loan for uranium on our Blue Mountain property, Contract No. IDM-e 1114:

The corporation has been unsuccessful in its attempts to secure further capital to finance its participation in the Blue Mountain Project and we hereby formally request that the contract be cancelled.

When the contract went into recess in November the accounting branch witheld the amount of $300.00, which the corporation, in turn, witheld from the drilling contractor. If there is to be a refund of any or all of this amount, please forward the check to the corporation at 1215 E. Thurston Ave., Spokane, Washington.

Very Truly Yours,

President

JUN 4 1958

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

ORIGINAL FILE COPY
DMEA
RECEIVED JUN 9 1958

DATE		
6/9	H.G.	225
10	Cdm	100
"	JG	110
6/10	AW	800
6/11	~~Murphy~~	~~200~~

May 20, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: Howard F. Albee, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-4671 (Uranium), Geo-Resource Corporation, Blue Mountain Project, Stevens County, Washington, Contract No. Idm-E1114

The property was visited May 16, 1958, in company with G. G. Waddell, Mining Engineer, U. S. Bureau of Mines.

Amendment No. 2 of the contract provided for a recess to end not later than April 15, 1958. There was no one on the property on May 16, 1958, and there was no evidence of any work having been done other than the possible beginning of some surveying.

The access road to the property has been little used and the road across the property has not been cleared of the winters accumulation of fallen timber and slide material.

Distribution:
DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Docket
Albee

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 2 1958

DATE	INITIALS	CODE
5/2	C	220
5/2	[illegible]	800
"	JMM	700

So. 157 Howard Street
Spokane 4, Washington

April 30, 1958

Mr. Richard Weaver
Geo-Resource Corporation
Suite 525-528 Hutton Building
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Blue Mountain Mine
Contract No. Idm-E1114
Stevens County, Washington

Dear Mr. Weaver:

Amendment No. 2 of your DMEA contract provides for a recess to end not later than April 15, 1958.

We tried to telephone you to learn your plans for resuming the DMEA work but were unsuccessful. Will you please advise us whether or not drilling was resumed by April 15, and if not what your plans for resuming work may be.

Sincerely yours,

A. E. Weissenborn
Executive Officer,
Field Team, Region

cc: DMEA (2)
USBM (2)
USBM (AD)
Albee

Form MF-104 (Rev.) (April 1952)

FEB 10 1958

W

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

SUPPLEMENTAL

Month of January 1958 Docket No. DMEA 4671 Contract No. Idm-E1114

Operator's Name Geo-Resource Corporation Minerals Uranium

Address Suite 525-8 Hutton Bldg., Spokane 4, Washington

Contract Amount, $ ~~45,960.00~~ 53,972.00 Government Participation: 75 % Amount, $ ~~34,470.00~~ 40,480.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	1233.00	6336.00	7569.00	1233.00	6336.00	7569.00
Bulldozing		3045.00	3045.00		3045.00	3045.00
~~Contracting~~ Standby Time		180.00	180.00		180.00	180.00
~~xxxxx~~ Standpipe		750.00	750.00		750.00	750.00
Cementing & Casing		300.00	300.00		300.00	300.00
(2) Labor and Supervision:						
Labor						
Supervision		2400.00	2400.00		2400.00	2400.00
Technical Services		443.75	443.75		443.75	443.75
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Gasoline		108.00	108.00		108.00	108.00
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation		133.32	133.32		133.32	133.32
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes		357.60	357.60		357.60	357.60
Liability Insurance						
Core Boxes		55.00	55.00		55.00	55.00
Transp. Dozer		100.00	100.00		100.00	100.00
(8) Contingencies (specify):						
TOTALS	1233.00	14,208.67	15,441.67	1233.00	14,208.67	15,441.67

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 1/28/58 *Payee Geo-Resource Corporation

Per George B. Weaver Title General Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 924.75

Signature Dorothy F. Long (Authorized Certifying Officer)

Date 2/4/58 Vou. No. 21No

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 1114 in accordance with the terms of the contract.

Signature /s/ John G. Waddell Title Mining Engr. Date 1/30/58

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Jan. 31, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED FEB 10 1958 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

SUPPLEMENTAL

Month of January 1957 Docket No. DMEA 4671 Contract No. Idm-E1114

Operator's Name Geo-Resource Corporation Minerals Uranium

Address Suite 525-8 Hutton Bldg., Spokane 4, Wash.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
~~Raising~~ Standby Time	Hr.			180.00	24	7.50	24	7.50/hr.
~~Stoping~~ Transp. Dozer	Mi.			100.00	100	1.00	100	1.00/mi.
~~Winzing~~ Core Boxes	Ea.			55.00	55	1.00	300	1.00/ea.
Drilling: Core	Ft.	1233.00	205.5	7569.00	1261.5	6.00	3000	6.00/ft.
~~Churn~~ Casing	Ft.			300.00	100	3.00	100	3.00/ft.
~~Auger~~ Standpipe	Ft.			750.00	100	7.50	100	7.50/ft.
~~Stripping~~ Gasoline	Gal.			108.00	300	.36	300	.36/gal.
Trenching	Hr.			1400.00	80	17.50	80	17.50/hr.
Test Pits								
Roads and Trails	Hr.			1050.00	60	17.50	60	17.50/hr.
Drill Site Prep.	Hr.			595.00	34	17.50	40	17.50/hr.
TOTAL DISTRIBUTED COSTS		1233.00		12,107.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Depreciation				133.32				
~~Operating Equipment Purchased~~								
~~Partial Reclamation and Repairs~~ Payroll Taxes				357.60				
~~New Buildings, Improvements, etc.~~ Supervisor				2,400.00				
Technical Services				443.75				
TOTAL COSTS				15,441.67				

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

Date 1/28/58 Operator Geo-Resource Corporation

Per George B. Weaver Title General Manager

NOTE.—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.

REMARKS:

(Instructions on reverse)

(For Government use only)

/s/ Galen G. Waddell, Mining Engr., 1/30/58

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 30 1957

DATE	INITIALS	CODE
12/30	C	220
12/30	B	215
		700

December 26, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Blue Mountain Mine
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Selfridge:

Enclosed are the Government and Audit copies of Amendment No. 2 to the contract.

By copy of this letter, other copies of the amendment are being distributed.

Sincerely yours,

Donald C. Alvord for

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
USBM (AD) w/copy of encl.
Prinz

1201 N. Division St.
Spokane 2, Washington

December 11, 1957

ORIGINAL FILE COPY
DMEA
RECEIVED
DATE
12/16 C 220
12/17 CEP 800
~~FMM 700~~

Geo-Resources Corporation
525-528 Hutton Building
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Blue Mountain Mine
Contract No. Idm-E1114
Monthly operating report for
November 1957

Gentlemen:

The subject monthly operating report has been processed and forwarded to the Disbursing Officer for payment.

We are withholding an amount of $300.00 as the project is recessed. This is standard procedure for all recessed contracts. We are obliged to withhold a portion of the Government's contribution to the cost pending resumption of work.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USGS (2)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/16	Murphy	700
12/16	Kiesler	700
12-17	Chambers	800
12/18	[illegible]	130
"	Johnson	110
"	Gittins	100
12/20	[illegible]	220
		700

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

DEC 19 1957

Re: Docket No. DMEA-4671 (Uranium)
Contract No. Idm-E1114
Geo-Resource Corporation
(formerly Mine Consultants, Inc.)
Sec. 10, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

Dear Mr. Weissenborn:

Enclosed are the original and four copies of a proposed Amendment No. 2 to the captioned contract, signed by the Administrator for the Government. Also, enclosed are two extra copies for Field Team use.

If you and the Operator find the proposed amendment in order, please have an authorized representative of the corporation sign the original and four copies. Thereafter, kindly distribute the copies in the usual manner.

This amendment has been prepared in accordance with the Field Team's recommendations, transmitted November 22, 1957. The recess and extension of the completion date mentioned in your letter, dated December 6, 1957, to Mr. Weaver, has also been included in the proposed amendment.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures

FMMurphy/gla
12-16-57
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Mr. Murphy

APPROVED:

Frank D. Lamb

Member, Bureau of Mines

N. E. Nelson

Member, Geological Survey

8623

ORIGINAL FILE COPY
DMEA
RECEIVED DEC 9 1957
DATE | INITIALS | CODE
12/9 | C | 220
12/9 | | 800
| | 700

So. 157 Howard Street
Spokane 4, Washington

December 6, 1957

Mr. Richard Weaver
Geo-Resource Corporation
Suite 525-528 Hutton Building
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Blue Mountain Mine
Sec. 10, T. 29 N., R. 38 E., W.M.
Contract No. Idm-E1114

Dear Mr. Weaver:

This acknowledges receipt of your letter of December 3, 1957, in which you request a recess of your DMEA contract from November 30, 1957 to March 1958.

In case we should have later than usual spring, we are requesting Washington to prepare an amendment authorizing a recess from November 30, 1957 to April 15, 1958 and to postpone the completion date from June 1, 1958 to November 15, 1958.

No further notice by you to any other agency regarding this change of plan is necessary.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

cc: DMEA (2)
USBM (2)
USBM (AD)
Albee

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 12 1957

DATE	INITIALS	CODE
12/12	C	220
		130
		700

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

December 5, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Blue Mountain Mine
Sec. 10, T. 29 N., R. 38 E., W.M.
Contract No. Idm-E1114

Dear Mr. Selfridge:

Enclosed are two copies of a letter dated December 3, 1957 from the referenced operator requesting a recess from November 30, 1957 to March 1958.

We doubt that it will be possible to resume work before the end of March unless we have an unusually early spring. Therefore, we recommend that an amendment be prepared authorizing a recess period from November 30, 1957 to April 15, 1958, and postponing the completion date from June 1, 1958 to November 15, 1958.

By Field Team, Region I

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USBM (AD)
Albee

Incorporated in
Amendment No. 2.

GEO-RESOURCE CORPORATION
TEL MA. 4-9654
SUITE 525-528 HUTTON BUILDING
SPOKANE 4, WASHINGTON
CABLE GEORESCO

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 12 1957
DATE | INITIALS | CODE

3 December, 1957

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane, Washington

DMEA

Re: Blue Mountain Project
DMEA Docket No. 4671 - Contract No. Idm-E 1114

Dear Mr. Weissenborn:

On the 27th of November, 1957 a snow storm in the Blue Mountain area rendered the roads virtually impassable for the water truck belonging to the drill contractor. After a conference with the contractor it was decided that, in view of this fact and the higher cost of operation due to freezing and lower results in terms of feet per day it was uneconomical from all standpoints to continue operations this fall until the weather moderates. Consequently, the drilling program has been shut down, effective November 30, and no further work is contemplated on this project until as late as March, 1958.

Please inform us if any further notification is necessary to any other agency concerned in DMEA regarding this change of plan.

Thank you.

Very truly yours,

Richard Weaver,
Executive Vice President

RW:md

DRAFT
MMurphy/izm
12-4-57

EXPLORATION PROJECT CONTRACT
GEO-RESOURCE CORPORATION
DOCKET NO. DMEA-4671

AMENDMENT NO. 2

It is agreed this _____ day of _____, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and the Geo-Resource Corporation hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E1114 (Docket No. DMEA-4671), dated July 24, 1957, (as amended), hereinafter called the "Contract," that the contract is further amended as follows:

1. Section 15, T. 29 N., R. 38 E., W.M.&B., Stevens County, Washington is added to the land mentioned in Annex I of the contract.

The Operator has right of possession of sec. 15 under the terms of an Operating Agreement, dated June 27, 1957, between the Universal Mining Corporation and the Operator.

A Consent to Lien and Subordination Agreement covering sec. 15, signed by Universal Mining Corporation is attached hereto and made part hereof.

2. To provide for the extension of the exploratory work to sec. 15 a State III is added to the contract.

3. The work under Stage III shall be subject to the General Provisions of the contract and shall consist of bulldozing three trenches and preparing access roads and drill sites, and core-drilling four holes at the locations approximately shown on the map entitled "Figure 1, Map Showing location of proposed work in sec. 15, T. 29 N., R. 38 E., W.M.---.", attached hereto and made part hereof.

Two trenches, each about 100 feet long, shall be cut along the side hill between the open cut and the contact of the metasediments (Togo formation) and the granite (Loon Lake) to intersect the possible extensions of the shear zones. These trenches shall be completed first. The remaining bulldozer hours shall be used to bulldoze cuts to expose the granite-metasediment contact at several places along the north side of the tongue of granite that protrudes into the metasediments.

Not more than four holes aggregating 700 feet shall be drilled under this Stage III of the contract. The maximum depth of an individual hole shall not exceed 200 feet. Holes Nos. 2 and 4 shall be inclined approximately -60° to intersect both the vertical shear zone and the granite contact. Holes Nos. 1 and 3 shall be drilled vertically to explore the metasediments near the contact. Holes Nos. 1, 2, and 3 shall be collared within 100 feet of the metasediment-granite contact.

4. Under Estimated Costs of the Project, Actual Costs the following is added:

Stage III

Category (1) Independent Contracts

Bulldozer Work:

Access roads and drill sites, 10 hrs. @ $17.50/hr.	$175.00	
Trenches, 40 hrs. @ $17.50/hr.	700.00	
Transporting dozer, 100 miles @ $1/mile	100.00	
Diamond drilling:		
Core drilling, 700 ft. @ $6/ft.1/	4,200.00	
Driving standpipe, 100 ft. @ $7.50/ft.	750.00	
Cementing and drilling out or reaming and casing, 60 ft. @ $3/ft.	180.00	
Standby and set-up time, 20 hrs. @ $7.50/hr.	150.00	$6,255.00

Category (2) Personal Services		
Subcategory (a) Supervision		
Supervisor, 1½ months @ $600/mth.	$900.00	
Subcategory (b) Technical Services		
Consulting geologist - 6 days @ $75/day	450.00	
Subcategory (c) Labor	None	$1,350.00
Category (3) Operating Materials and Supplies		
Gasoline, 100 gals. @ $0.36/gal.	$36.00	
Sample sacks, 30 @ $0.35/each	10.50	
Cardboard core boxes, 20 @ $1/each	20.00	$66.50
Category (4) Operating Equipment		
Subcategories (a) and (b) Rental and Purchases	None	
Subcategory (c) Depreciation		
Jeep 105 truck, 1½ mths. @ $33.33/mth.	$50.00	$50.00
Categories (5) and (6)	None	
Category (7) Miscellaneous:		
Payroll taxes 14.9% of supervisor's salary ($900)	$134.10	
Chemical analyses for U_3O_8 content of 30 samples @ $5/sample	150.00	
Transportation of samples	9.00	$293.10

Estimated Total Cost Stage III $8,014.60

5. The S U M M A R Y under Estimated Costs of the Project is deleted and replaced as follows:

S U M M A R Y

Estimated Total Cost Stage I	$28,403.92
Estimated Total Cost Stage II	$17,554.20
Estimated Total Cost Stage III	$8,014.60

Estimated Total Cost of Project (rounded) $53,972.00
Government Participation @ 75% (rounded) $40,480.00

6. In Article 5 of the contract the figures $45,960.00 and $34,470.00 are deleted and replaced by the figures $53,972.00 and $40,480.00, respectively.

7. In Article 3 of the contract the date fixed for completion of work is extended to September 1, 1958; and in Article 8(b)(2) the period of ten years fixed for repayment of royalties is extended to eleven years.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By _____
Administrator, Defense Minerals
Exploration Administration

GEO-RESOURCE CORPORATION

By_____

Title_____

1/ See Article 13(d)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 9 1957

DATE	INITIALS	CODE
12-9	C	220
"	Murphy	700

December 4, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Sec. 10, T. 29 N., R. 38 E., W. M.
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Selfridge:

Enclosed are the Government and Audit copies of Amendment No. 1 to the contract.

Other copies of the amendment have already been distributed.

Sincerely yours,

A.E. Weissenborn by Aken
A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
USBM (AD)
Albee

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED 1957

Month of November, 1957 Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name Geo-Resource Corporation Minerals [illegible]
Address [illegible] Building, [illegible]
Contract Amount, $[illegible] Government Participation: [illegible] % Amount, $[illegible]

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	[illegible]	[illegible]	[illegible]	2052.00	4284.00	6336.00
Bulldozing		[illegible]	[illegible]		3045.00	3045.00
Crosscutting [illegible]	180.00		180.00	180.00	—	180.00
Drifting [illegible]		[illegible]	[illegible]		750.00	750.00
[illegible]		[illegible]	[illegible]		300.00	300.00
(2) Labor and Supervision:						
Labor						
Supervision	600.00	1200.00	[illegible]	600.00	1800.00	2400.00
Technical Services	75.00	[illegible]	[illegible]	75.00	368.75	443.75
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Gasoline		[illegible]	[illegible]		108.00	108.00
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation	[illegible]	[illegible]	[illegible]	33.33	99.99	133.32
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes	[illegible]	[illegible]	[illegible]	89.40	268.20	357.60
Liability Insurance						
[illegible]	[illegible]	[illegible]	[illegible]	12.00	43.00	55.00
[illegible]		[illegible]	[illegible]		100.00	100.00
(8) Contingencies (specify):						
TOTALS	[illegible]	[illegible]	[illegible]	3044.73	11,166.94	14,208.67

I certify that the above bill is correct and just and that payment therefor has not been received.
Date [illegible], 1957 *Payee Geo-Resource Corporation

Per George B. Weaver Title General Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 1981.30

Signature Dorothy T. Berg
(Authorized Certifying Officer)

Date 12/11/57 Vou. No. 2088
(See other side)

2281.30
300.00
Pay $1981.30

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 1114 in accordance with the terms of the contract.

Signature /s/ G. G. Waddell Title Mining Engr. Date 12/4/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Dec. 9, 1957

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED DEC 16 1957 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1957 Docket No. DMEA 0071 Contract No. Ida-S 1114
Operator's Name Geo-Resource Corporation Minerals Uranium
Address 525-D Dutton Bldg., Spokane 4, Washington

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising Stby Time	Hr	180.00	24	180.00	24	7.50	24	7.50/Hr
Shafts Trans. Boxes	Mi			100.00	100	1.00	100	1.00/Mi
Winzes Core Boxes	Ea	12.00	12	55.00	55	1.00	500	1.00/Ea
Drilling: Core	Ft	2052.00	342	6336.00	1056	6.00	3000	6.00/Ft
Churn Casing	Ft			300.00	100	3.00	100	3.00/Ft
Auger Stpipe	Ft			750.00	100	7.50	100	7.50/Ft
Stripping								
Trenching	Hr			1400.00	80	17.50	80	17.50/Hr
Test Pits								
Roads and Trails	Hr			1050.00	60	17.50	60	17.50/Hr
Drill Site Prep.	Hr			595.00	34	17.50	40	17.50/Hr
Total Distributed Costs		2244.00		10,766.00				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date Dec. 3, 1957 Operator Geo-Resource Corp.

Per George B. Weaver Title General Manager

NOTE.—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.

Remarks:

(Instructions on reverse)

(For Government use only)

/s/ J. J. Wadell, Mining Engr, USBM, 12/4/57

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc.". The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

3 December, 1957

To: Blue Mountain Project
WEA Docket No. 4071
Contract No. Ith-6 1114

MONTHLY REPORT

Month of November, 1957

DIAMOND DRILLING

Diamond drilling in November was considerably hampered by freezing weather, muddy roads and snow. Two holes were completed during the month for a total of 373 feet. The most recent snow on the 27th rendered the roads impassable for the water truck, and after conferring with the drill contractor, it was decided to shut the drilling program down for the winter, effective 30 November.

PROBE

The [illegible] probe unit running out of commission for parts, so arrangements were made to borrow a [illegible] probe unit belonging to Western Uranium Corporation for the probing of holes [illegible] and C. This probe has been calibrated in the WUC calibration barrel so that, on the scale used in the probing, a scale reading of [illegible] indicates material averaging .78% contained uranium. Hole no. 7 was probed using a [illegible] probe unit which the company has recently purchased. Scale readings are in [illegible]/hr.

Respectfully submitted,

[illegible]

George B. Weaver
George B. Weaver,
General Manager

GEO - RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No. 4671)

State: Washington

Hole No.: 6 - Page 1

Collar Elev.: 3523.82

County: Stevens

Angle: 90°

Hole Started: 21 Oct., 1957

Coord.: N 13,371.60 E 11,469.59

Bearing:

Hole Finished: 8 Nov., 1957

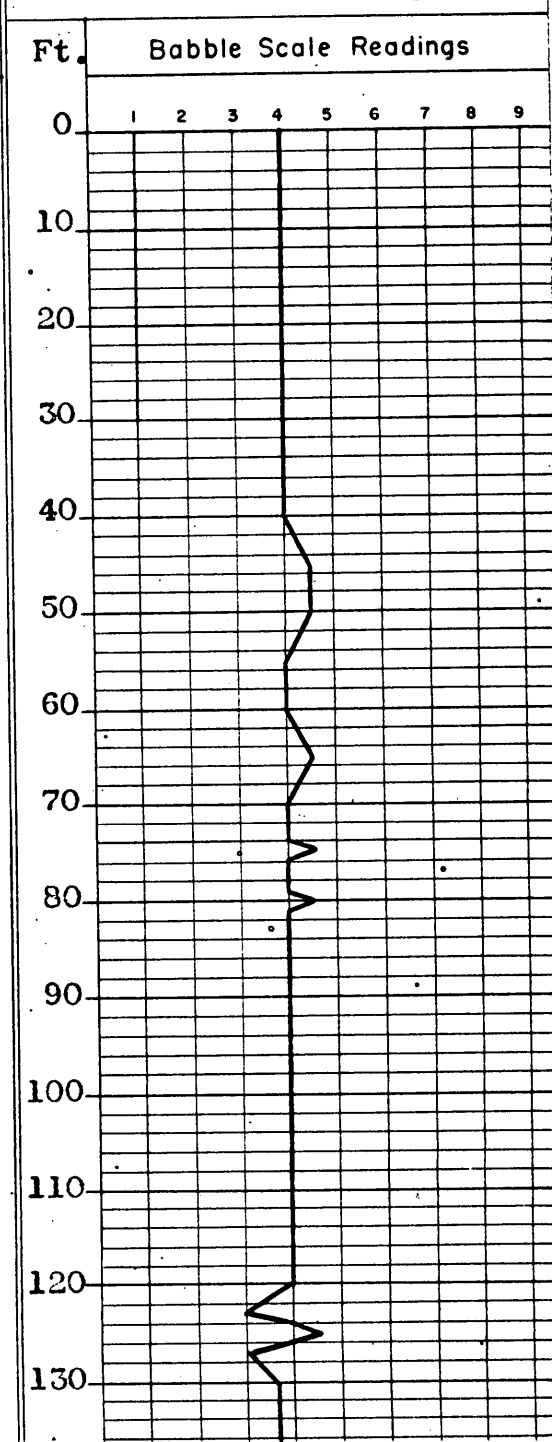
.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Footage	% Core Recovery	Geology	Assay No.	Assay %
13.5	30	Soil and loose rock		
16	40	Quartzite - blue-green and white, thin banded, badly broken		
29.75	01	Do		
32	20	Do		
36.75	20	Do		
37.75	80	Do		
40.5	50	Do		
45.8	40	Do		
49.5	40	Do		
51	90	Do		
54.5	85	Do		
57.6	80	Do - Banding dips 65°-70° to hole of axis		
62.6	50	Do		
65.75	60	Do		
69	85	Do		
74.8	90	Do		
77	90	Do		
81	85	Quartzite - massive to crude banded grey-green color, banding dips 60°-70° to axis of hole		
85.5	95	Do - from 81-82 and at 83.5		
90	95	black qtzite w/qtz vein stru-		
95	100	cture. Some fresh sulfide and		
100	100	abundant green staining.(CuO?)		
103	95	Do - from 100-101, qtz vein parallels core		
108	100	Qtzite - massive black to		
113	100	grey-green banded		
118	100	Do		
123	100	Do		
125	90	Do - intruded qtz & fracturing		
130	95	Black qtzite w/abundant qtz		
135.25	95	stringers. Qtzite-massive		
140	95	black to grey-green crude		
144.5	95	banded		

Radiometric Log



GEO - RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No.4671)

State: Washington

Hole No.: 6 - Page 2

Collar Elev.: 3523.82

County: Stevens

Angle: 90°

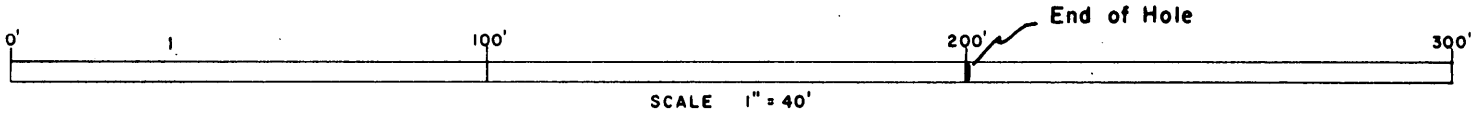
Hole Started: 21 Oct., 1957

Coord.: N 13,371.60 E 11,469.59

Bearing:

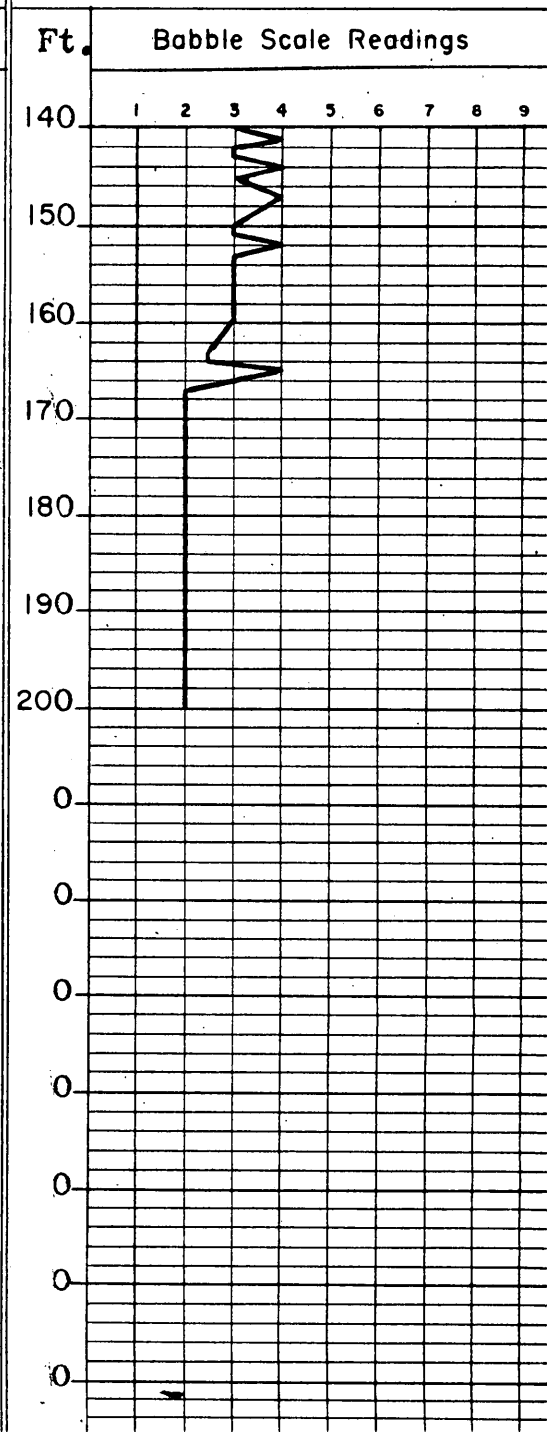
Hole Finished: 8 Nov., 1957

.5% and above
.2% - .5%
less than .2%



Footage	% Core Recovery	Geology	Assay No.	Assay %
146.5	80	Do - badly fractured qtz stringers		
149.75	85	Do - Do		
152.9	90	Do		
157.9	100	Do		
162.9	100	Do		
167.9	100	Do		
172	100	Do		
177.5	95	Do		
180	85	From 177 to 179.5, granitic dike rock-contacts not recovered		
183.5	95	Do		
184.5	95	Do - Fracturing		
188.5	95	Do		
193	100	Qtzite-greenish black w/crude banding		
196.5	85	Do - qtz stringers		
200.5	90	Do - Hole bottomed at 200.6'		

Radiometric Log



GEO - RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No.4671)

State: Washington

Hole No.: 7 - Page 1

Collar Elev.: 3568

County: Stevens

Angle: 90°

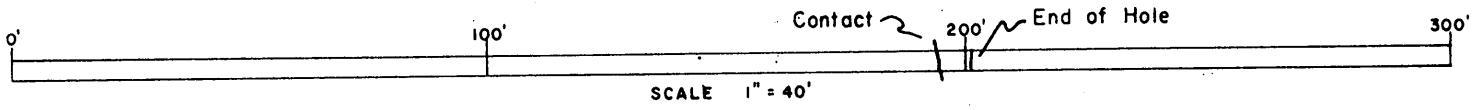
Hole Started: 11 Nov., '57

Coord. N13,482 E12,275

Bearing:

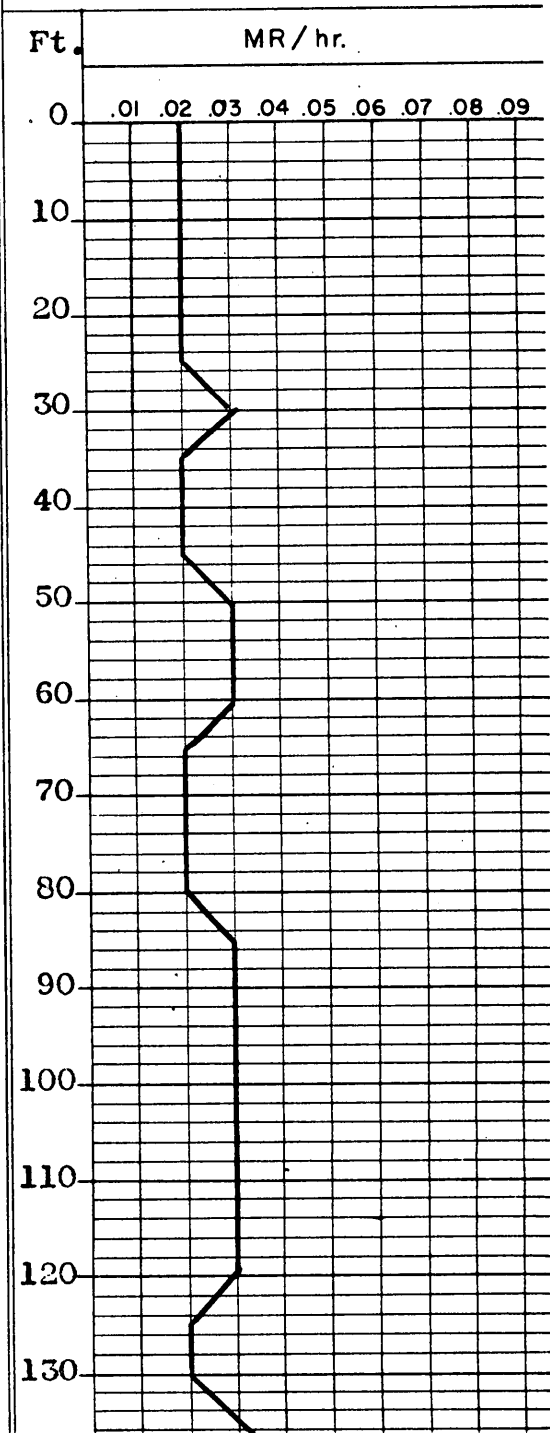
Hole Finished: 28 Nov., '57

.5% and above
.2% - .5%
less than .2%



Footage	% Core Recovery	Geology	Assay No.	Assay %
22.25	0	Overburden, incompetent weathered rock		
30.1	60	Banded schist, mineral composition uncertain-badly weathered and broken		
34	50	Do		
40	40	Do		
45	90	Do		
50	20	Do		
55	60	Do		
60	50	Do		
63	50	Do		
66	25	Do		
71.3	60	Do-Banding dips 40° to hole axis		
76.3	60	Do-from 71.3 to 74 - granitic dike		
81.5	60	Do		
84	70	Do		
87.1	50	Do		
91.5	50	Do		
98.5	65	Do		
101.75	75	Schist-banded, badly fractured, abundant iron oxides		
105	75	Do		
111	30	Do-Qtzite at end of run		
115.75	85	Schist & Qtzite alternating		
120.2	90	Do		
123	20	Do - badly fractured		
127	90	Do - banding dips 40° to hole axis		
134.5	70	Do		
135.2	90	Do		
140	80	Schist grades into grey-black, crude banded qtzite		
145	100	Qtzite w/intruded qtz		
150	90	Do		
155	50	Do - fractured		

Radiometric Log



GEO - RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No.4671)

State: Washington

Hole No.: 7 - Page 2

Collar Elev.: 3568

County: Stevens

Angle: 90°

Hole Started: 11 Nov., '57

Coord.: N 13,482 E 12,275

Bearing:

Hole Finished: 28 Nov., '57

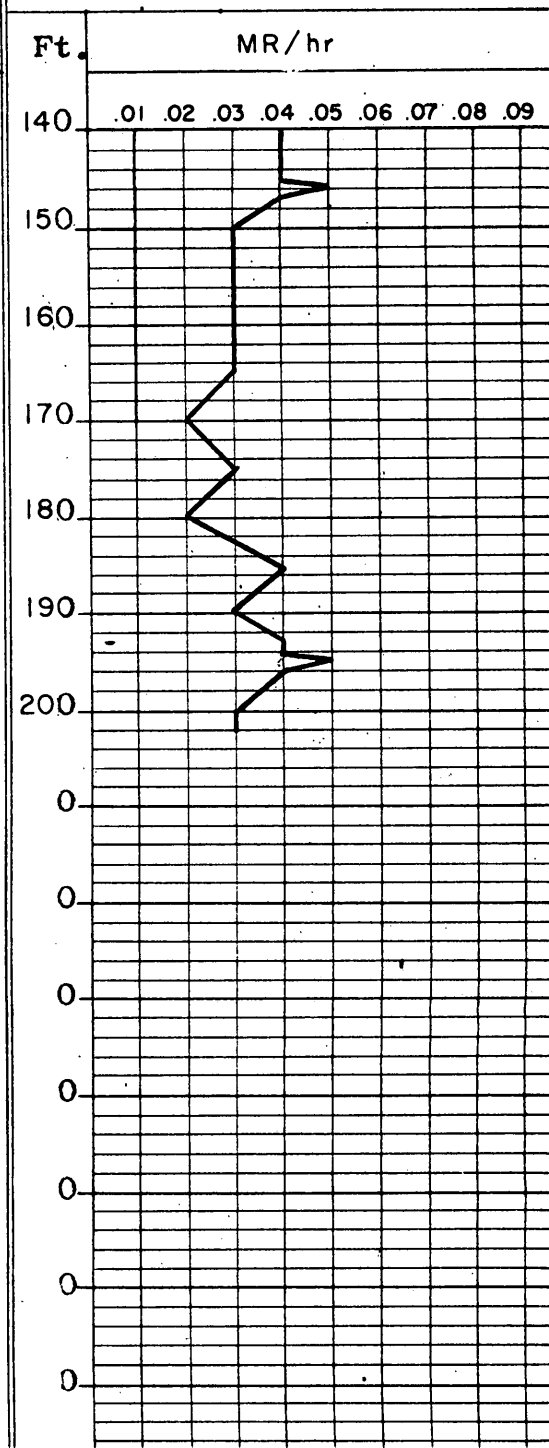
.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Footage	% Core Recovery	Geology	Assay No.	Assay %
160	50	Do- Do		
165	85	Do		
170	95	Do		
173	100	Qtzite - grey-green, crude banded		
176	85	Do		
181.9	100	Do		
187	98	At 182 granitic dike rock, medium grain, equigranular, 80% light minerals		
192	95	Granite		
197	95	At 193 contact w/qtzite. Granite cuts plane of banding at approx. 20°		
202	100	Qtzite - Hole bottomed at 202'		

Radiometric Log



DMEA 1[illegible]6

REV. 1[illegible]5

REFERENCE SLIP

DEFENSE MINERALS EXPLORATION ADM[illegible]STRATION

TO:	INIT[illegible]LS	DATE
1. PONE - RM. 3643		11-26
2. ~~MURPHY RM 4445~~		
3.		
4. USBM COMMENT		
5.		
FROM: RECD	12-3-57	

FOR: Check items for action desired

___ Action
___ Approval
X Comment
___ Conference
___ Instructions
___ Reply for signature of _____
___ Investigate
___ Recommendations
___ Rewrite
___ Your information
___ Surname
___ Signature
___ File

REMARKS:

I concur in project recommended by the field examiners ($8,015)

[signature] for J. Pone

INT.-DUP. SEC., WASH., D.C.

M8278

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

CENTRAL FILE COPY
DMEA
RECEIVED DEC 2 1957
IN REPLY REFER TO:

DATE	INITIALS	CODE
12/2	C	220
12/3	FMM	700

Memorandum

November 29, 1957

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of application, DMEA 4671 (uranium), Geo-Resource Corp., Blue Mountain Mine, Stevens County, Washington.

The applicant wishes to perform exploration work that would be additional to that provided under contract Idm-E1114. The proposed new work would consist of 170 hours of bulldozing and a maximum of 1,000 feet of core drilling.

The applicant's reasons for proposing more work are based on the results of a geochemical soil sampling program. The examiners believe, too, that the geochemical results are promising but do not believe that those results constitute justification for the extensive and costly project initially proposed by the applicant.

The examiners conclude that some exploration work is warranted on the grounds that the work would have a fair chance for success. For that reason I agree with their recommendation for a modified and reduced exploration project.

W. P. Williams

W. P. Williams

EA Form 7
(2-56)

OFFICIAL FILE COPY

Date	Surname	Code
11-26	Murphy	700
11-26	Ellis	700
11/26	Talbot	800
11/27	[illegible]	130
"	Johnson	110
"	Mortensen	100
	"	
11/29	gb	220
		700

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

NOV 27 1957

Re: Docket No. DMEA-4671 (Uranium)
Contract No. Dmr-2114
Geo-Resource Corporation
(formerly Mine Consultants, Inc.)
Sec. 10, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

Dear Mr. Weissenborn:

Enclosed are the original and four copies of a proposed Amendment No. 1 to the subject contract signed by the Administrator for the Government. Also, enclosed are two extra copies for Field Team use.

If you and the Operator find the proposed amendment in order, please have an authorized representative of the corporation sign the original and four copies. Thereafter, kindly distribute the copies in the usual manner.

This amendment has been prepared in accordance with the Field Team's recommendation, transmitted November 13, 1957.

The Field Team's recommendation to extend the project to cover sec. 15 is being reviewed.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures
APPROVED:

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

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

FMMurphy/izm 11-26-57
cc: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

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DATE	INITIALS	CODE
11/25	gb	220
		130
"	FMM	700

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

November 22, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Blue Mountain Mine
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Selfridge:

Enclosed are three copies of a memorandum from Howard F. Albee, Geologist, Geological Survey and G. G. Waddell, Mining Engineer, Bureau of Mines, recommending an extension of Contract Idm-E1114 with Geo-Resource Corporation.

Geo-Resource Corporation is currently exploring under Contract Idm-E1114 an area north and east of the Midnite mine along the contact of granitic intrusive rocks of the Loon Lake batholith. In this area outcrops are scarce and the project is based on the discovery of anomalous concentrations of uranium in the soil below the granite-sedimentary contact. It is postulated that these anomalies may be the result of deposition of uranium by groundwater which has leached the uranium from ore bodies at or near the contact. The object of the exploration is to test the contact in this area in the hope of discovering the ore bodies which are the source of the anomalies. The work has not progressed sufficiently to draw any conclusions.

Work under the present contract is confined entirely to section 10. The applicant presents data to show that soil sampling in section 15 has discovered anomalies even stronger than most of those in section 10. Subsequent scintillometer traversing and bulldozing have uncovered a fracture zone a few hundred feet from the contact in which coatings of autunite are found on fracture planes. Two samples taken by the DMEA field examiners assayed only 0.054 and 0.047 percent U_3O_8; some samples by the applicant assay much higher (see the map accompanying his application).

These samples do not mean much. The autunite is little more than a staining and is significant only in that it is the first discovery of uranium minerals in place on the property; it is in no way indicative of the grade of any ore that might exist in depth. As such it unquestionably justifies some further investigations. The relation of the occurrence to the contact is shown on figure 1 accompanying Albee's and Waddell's memorandum and its relation with respect to section 10 is shown by the map submitted with the applicant's request.

The land in section 15 is controlled through an operating agreement with the Universal Mining Corporation who purchased it from the Taylor Land and Livestock Company. Copies of the Warranty Mining Deed and the Operating Agreement were sent to you with our letter of October 23; copies of the Consent to Lien and Subordination Agreement were mailed to you on October 30.

The Field Team believes that the showings on section 15 deserve exploration, but concurs with the examiners that the modest program they propose is all that is warranted at this time. We feel sure that the applicant will accept whatever contract is offered to him.

By Field Team, Region I

A E Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Thomas E Howard

for: Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USBM (AD)
USGS (SRO)
AEC (Spokane)
AEC (SLC)
Albee

Copies sent to USBM and USGS Washington members for comment Nov 26 1956

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DMEA
RECEIVED NOV 25 1957

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

November 21, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: Howard F. Albee, Geologist, U. S. Geological Survey, and G. C. Waddell, Mining Engineer, U. S. Bureau of Mines

Subject: Extension of contract to sec. 15, Docket No. DMEA-4671 (Uranium), Geo-Resource Corp., Blue Mountain project, sec. 10, T. 29 N., R. 38 E., W.M.B., Stevens County, Washington, Contract No. Idm-E1114.

INTRODUCTION

The Operator applied on October 11, 1957, for additional work under Contract No. Idm-E1114, Docket No. DMEA-4671. It was suggested to the Operator that the proposal as submitted was too elaborate; on October 23, 1957, a revised proposal in the amount of $34,831 (rounded) was submitted.

The revised proposal requests 170 hours of bulldozing and a possible total of 3,000 feet of core drilling. The bulldozing is for the preparation of access roads, drill sites, and trenches. The proposed drilling will comprise 3 holes having minimum depths of 250 feet and a maximum of 1,000 feet.

The property was examined on November 5, 1957, by E. W. Parsons and G. C. Waddell, Bureau of Mines, and Howard F. Albee, Geological Survey. The examiners were accompanied by William D. Weaver and Ben Weaver of the corporation. About 5 hours were spent on the property and 2 samples were cut along the mineralized fault.

SUMMARY, CONCLUSIONS, AND RECOMMENDATION

Uranium, in the form of sparsely distributed autunite, has been found at the surface along a vertical fault in section 15 at a point about 2,500 feet southwesterly from the southernmost

DMEA work in section 10. The mineralized outcrop is in the metasediments well above the granite-metasediment contact, topographically. Its true distance from the contact is not known as the dip of the contact could not be determined. As all known uranium deposits in the area have been found at or near the contact, the mineralized outcrop may reflect such a deposit.

The examiners conclude that the geologic probability of making a significant discovery is fair and the approval of a modest exploration program, much less than the Operator's second proposal, is recommended.

PROPERTY RIGHTS

On June 29, 1956, Taylor Land & Livestock Company sold "all the sub-surface rights, ore and mineral" of certain property in Stevens County to the Universal Mining Corporation. Subsequently, Universal Mining Corporation entered into an operating agreement with Geo-Resource Corporation for the following described parcels of land:

> "Secs. 3 and 15, T. 29 N., R. 28 E., W.M., in Stevens County, Wash., containing 1280 acres more or less."

LOCATION AND ACCESSIBILITY

The property is about two miles north of the Spokane Indian Reservation at an elevation of 2,000 to 3,800 feet above sea level. Following is a road log to the property from Spokane:

Travel U. S. Highway 395 northwest to Springdale, Washington approximately 40 miles. About half a mile west of Springdale turn on Hunter's road and travel 10.4 miles to where there is a mail box with the inscription "Harmon and Harry Allen." Turn left and follow logging road 2.0 miles, then take right "Y", travel 1.4 miles on by a barn, then 1.6 miles to a sharp right turn with a road leading to the right. This road was built by the applicant. It is 3.2 miles to the section 15 property.

Usually it takes a 4-wheel drive vehicle to drive all the way to the property. Snow generally stays on the ground from January to March.

GEOLOGY

The observable geology in section 15 is similar to that in section 10 which is discussed in the field examination report of section 10 by D. R. MacLaren.

The program in section 10 was undertaken on the basis of anomalous radioactivity detected in soil samples downslope from the covered metasediment-granite contact. The spatial relationship of the radioactivity anomalies to the contact is analogous to the conditions found under a similar geologic environment at the Midnite mine, 7 miles to the southwest.

Ore deposits at the Midnite mine, found along the same contact, range in size from 150 to over 550 feet long and from 15 to 60 feet wide. The deposits are all at or near the contact and are most commonly found where the dips have flattened. The deposits are controlled also by systems of tight fractures and faults that cut the contact, and the rock along these faults and fractures is bleached where it carries the uranium. The ore deposits have been found at depths that range from just below the mantle to 400 feet, which is about the limit of exploration to date.

The Operator has found radioactivity anomalies in soil below the contact in section 15. In further checking of the section, autunite was found along a vertical fault at a point about 350 feet horizontally and about 150 feet vertically above the surface trace of the contact. (See Interim Inspection Report by H. F. Albee, dated September 30, 1957.) The autunite is in bleached metasediments similar to the uranium-bearing bleached material at the Midnite mine. Other rock along the fault is iron rich and is probably the result of introduction of iron or the redistribution of iron by hydrothermal solutions.

The ore deposits at the Midnite mine contain autunite above the water table and uraninite and coffinite below the water-table. If hydrothermal solutions ascended along a fault that penetrated such material, some of the uranium would likely be carried upward and redeposited. As all the known deposits are in the metasediments along or near the granite-metasediment contact, the most likely place to explore for the uranium would be along the contact in the vicinity of the fault.

The contact below the mineralized outcrop dips from 60°-70° westerly and has an irregular surface trace. The ore deposits at the Midnite mine are found mostly along irregularities in the contact and where the dips flatten. The flattening of dips, however, cannot be determined without subsurface information.

DISCUSSION OF APPLICANT'S PROPOSAL

The applicant's first proposal for DMEA assistance on section 15, submitted on October 11, 1957, was very elaborate with an estimated total cost of the project of $227,288.71. At the

Field Team's suggestion the applicant submitted the following less extensive exploration program:

Total estimated cost - $34,831.00

Bulldozing - 170 hours

Core drilling - 3,000 feet

Standpipe - 120 feet

The proposed drilling was to consist of 3 holes from 250 to 1,000 feet deep. The reason given by the applicant for the deep holes was to intersect the metasediment-granite contact at the same elevation where the best geochemical results were found by surface sampling. The examining team does not agree with this reasoning; however, because this small area where the holes were proposed has the only showing of autunite found in sections 10 and 15 and also shows contact structure similar to the Midnite mine producing area, it appears to warrant a small amount of exploration.

RECOMMENDED PROJECT

One trench should expose the contact at several places along the north side of the tongue of granite that protrudes into the metasediments. Two more trenches each about 100 feet long should be cut along the side hill between the exposed autunite and the contact to try to trace the faults to the intersection of the granite contact. This trenching will require 40 hours of dozing and another 10 hours will be needed to prepare drill sites.

Four holes drilled to a maximum depth of 200 feet would test this area adequately (see fig. 1). Holes No. 2 and 4 should be inclined 60° to the horizontal to intersect both the vertical fault zone and the granite contact. Holes No. 1, 2 and 3 should be collared within 100 feet of the metasediment-granite contact. It is estimated that 700 feet of diamond drilling and 100 feet of standpipe will be needed for the proposed exploration drilling.

ESTIMATED COSTS OF PROJECT

1. Independent contracts		
Bulldozer work (trenches and drill sites) D-8 cat or equivalent 50 hours @ $17.50/hr.	$ 875.00	
Transportation of dozer 100 miles @ $1.00/mi.	100.00	
Core drilling - AX or larger 700 feet @ $6.00/ft.	4,200.00	
Driving standpipe 100 feet @ $7.50/ft.	750.00	
Reaming & casing or cementing & drilling-out 60 feet @ $3.00/ft.	180.00	
Standby and set-up time 20 hours @ $7.50/hr.	150.00	$6,255.00
2. Supervision and technical services		
Supervision - 1½ months @ $600.00/mo.	900.00	
Consulting geologist - 6 days @ $75.00/day	450.00	1,350.00
3. Operating materials and supplies		
Gasoline - 100 gals. @ $0.36/gal.	36.00	
Sample sacks - 30 @ $0.35/ea.	10.50	
Cardboard core boxes - 20 @ $1.00/ea.	20.00	66.50
4. Operating equipment		
Jeep 105 truck - 1½ months @ $33.33/mo.		50.00
5. Rehabilitation and repairs	None	
6. Buildings, etc.	None	

7. Miscellaneous

Unempl. comp., Indust. insur., etc. 14.9% of payroll ($900.00)	134.10	
Chemical analysis for U_3O_8 content of 30 samples @ $5.00/sample	150.00	
Transportation of samples	9.00	293.10
Total cost of project		$8,014.60
Government participation @ 75%		$6,010.95

Enclosure 1
DMEA (3)
USBM (5)
USGS(SRO)
AEC, Salt Lake
AEC, Spokane
Docket
Albee

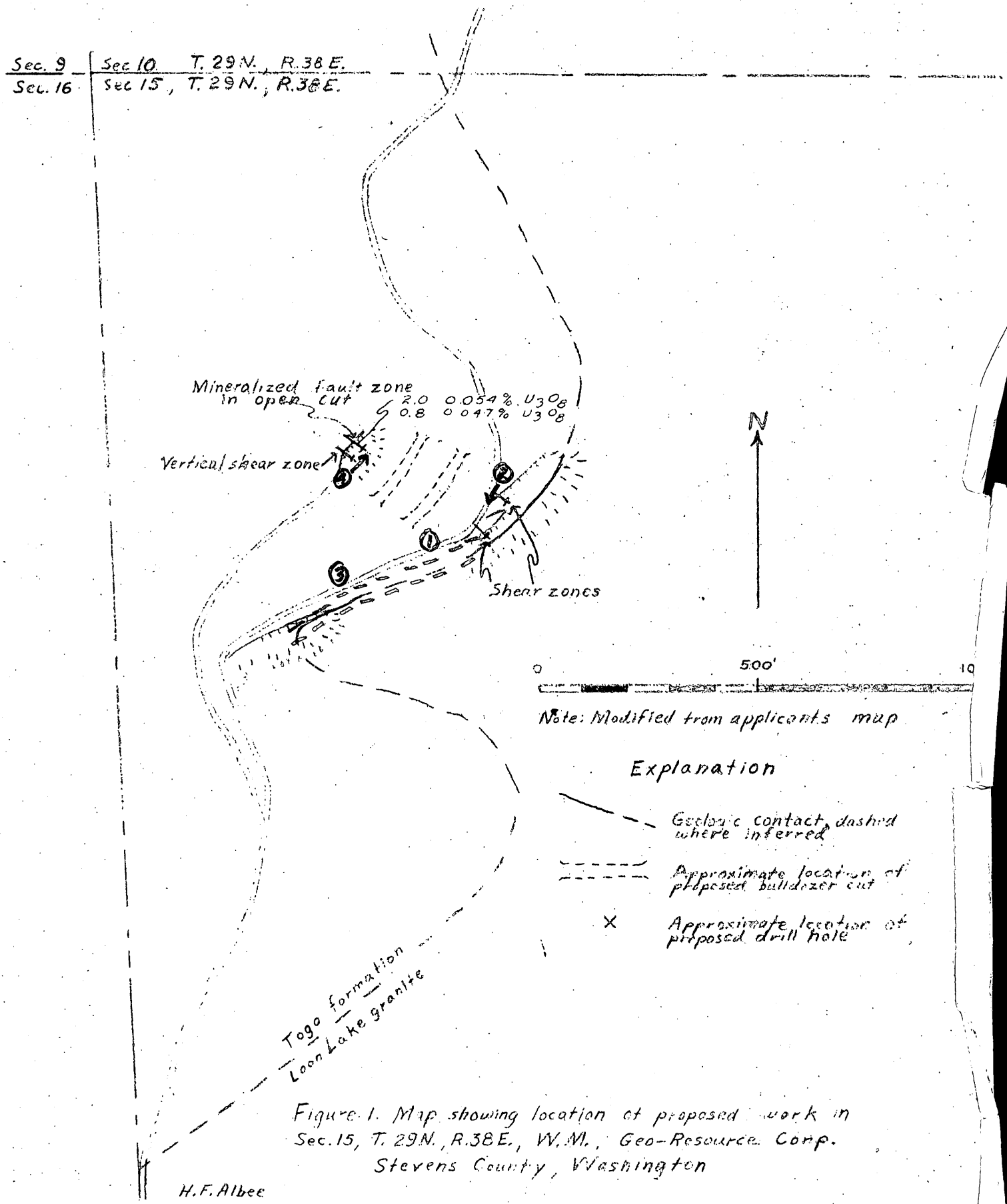

Figure 1. Map showing location of proposed work in Sec. 15, T. 29 N., R. 38 E., W.M., Geo-Resource Corp. Stevens County, Washington

H. F. Albee

CENTRAL FILE CO
DMEA
RECEIVED NOV 25 1957
DATE | MINERALS
11/25 C 220
11/25 800
11-19-57 100

1201 N. Division St.
Spokane 2, Washington

November 20, 1957

Geo-Resource Corporation
Suite 525-528 Hutton Building
Spokane 4, Washington

Re: Docket No. DMEA-4671 (uranium)
Contract No. Idm-E1114
Monthly operating report for
October 1957

Gentlemen:

This is to inform you the subject voucher could not be paid in the full amount claimed.

The deletion is explained in the attached copy of a memorandum to the Field Team from the Certifying Officer, Region I.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USGS (2)

DMEA Field Team, Region I

November 20, 1957

DMEA Certifying Officer, Region I

Monthly operating report for October 1957
Contract No. Idm-E1114

The subject operating report has been processed and forwarded to the Disbursing Officer for payment.

A deletion in the amount of $1233.00 for 205.5 feet of core drilling has been made. This footage is in excess of the 200 feet maximum that can be claimed for holes 4 and 5. A recommendation for an Amendment to the contract has been made. In the event such an amendment is approved, this amount will be reinstated.

Dorothy F. Long

cc: DMEA (2)
USGS (2)

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 25 1957
DATE CODE

DMEA Field Team, Region I

November 20, 1957

DMEA Certifying Officer, Region I

Monthly operating report for October 1957
Contract No. Idm-11114

DMEA-4671

The subject operating report has been processed and forwarded to the Disbursing Officer for payment.

A deletion in the amount of $1233.00 for 205.5 feet of core drilling has been made. This footage is in excess of the 200 feet maximum that can be claimed for holes 4 and 5. A recommendation for an Amendment to the contract has been made. In the event such an amendment is approved, this amount will be reinstated.

Dorothy F. Long

cc: DMEA (2)
USGS (2)
Contract Admin. & Audit Div.
GW
AD

EXTRA COPY
DMEA
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DATE
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Form MF-134 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED NOV 29 1957 D.M.E.A.

Month of October, 1957 Docket No. DMEA 1671 Contract No. Idn-E 1114
Operator's Name Geo-Resource Corporation Minerals Uranium
Address Suite 525-8 Hutton Building, Spokane 4, Washington
Contract Amount, $ 45,960.00 Government Participation: 75 % Amount, $ 34,470.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	2157.00	3360.00	5517.00	924.00	3360.00	4284.00
Bulldozing		3045.00	3045.00		3045.00	3045.00
Crosscutting						
~~Drilling~~ Standpipe	210.00	540.00	750.00	210.00	540.00	750.00
Cntg. & Casing		300.00	300.00		300.00	300.00
(2) Labor and Supervision:						
Labor	600.00	1200.00	1800.00			
Supervision				600.00	1200.00	1800.00
Technical Services		368.75	368.75		368.75	368.75
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Gasoline		108.00	108.00		108.00	108.00
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation	33.33	66.66	99.99	33.33	66.66	99.99
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes	89.40	178.80	268.20	89.40	178.80	268.20
Liability Insurance						
Core Boxes	19.00	24.00	43.00	19.00	24.00	43.00
Dozer Transport.		100.00	100.00		100.00	100.00
(8) Contingencies (specify):						
TOTALS	3108.73	9291.21	12,399.94	1875.73	9291.21	11,166.94

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Nov. 4, 1957 *Payee Geo-Resource Corporation

Per George B. Weaver Title General Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 1406.80

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 11/20/57 Vou. No. 2076

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-1114 in accordance with the terms of the contract.

Signature /s/ Gaber L. Waddell Title Mining Engr. Date 11/12/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Nov. 20, 1957

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED NOV 25 1957 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1957 Docket No. DMEA 4671 Contract No. Ian-E 1114
Operator's Name Geo-Resource Corporation Minerals Uranium
Address Suite 525-8 Hutton Bldg., Spokane 4, Washington.

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
xxx Trans. Dozer	Mi.			100.00	100	1.00	100	1.00/Mi.
Winzes								
xxxx Core Boxes	Ea.	19.00	19	45.00	45	1.00	300	1.00/Ea.
Drilling: Core	Ft.	2187.00	590½	5617.00	910½	6.00	3000	6.00/Ft.
Churn								
Cntg. xxx Csng.	Ft.			300.00	100	3.00	100	3.00/Ft.
Auger								
Drvg. xxx Stplpe	Ft.	210.00	28	750.00	100	7.50	100	7.50/Ft.
Stripping								
Trenching	Hr.			1400.00	80	17.50	80	17.50/Hr.
Test Pits								
Roads and Trails	Hr.			1050.00	60	17.50	60	17.50/Hr.
Drl. Site Prep.	Hr.			595.00	34	17.50	40	17.50/Hr.
Total Distributed Costs		2396.00		9756.00				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date Nov. 4, 1957 Operator Geo-Resource Corp.

Per George B. Weaver Title General Manager

→ NOTE.—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.

Remarks:

(Instructions on reverse)

(For Government use only)

/s/ Galen L. Waddell, Mining Engr., USBM, 11/12/57

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

GEO-RESOURCE CORPORATION
TEL. MA. 4-9654
SUITE 525-528 HUTTON BUILDING
SPOKANE 4, WASHINGTON
CABLE: GEORESCO

4 November, 1957

RE: Dino Mountain Project
DMRA Docket No. 1671
Contract No. IGr-S 1114

Cost Segregation Sheet - Supplement to MF 104

STAGE I

Drilling:

Hole No. 4	
36 Ft. @ $6.00	$216.00
Hole No. 5	
25½ Ft. DM @ $6.00	153.00
291 Ft. AM @ $6.00	1,746.00
Hole No. 6	
7 Ft. EM @ $6.00	42.00
	$2,157.00
20 Ft. Standpipe @ $7.50	$210.00

Supervision:

George B. Weaver, Project Superintendent	
Salary for October, 1957	$600.00

GEO-RESOURCE CORPORATION

George B. Weaver
George B. Weaver,
General Manager

GEO-RESOURCE CORPORATION
TEL. MA. 4-9654
SUITE 525-528 HUTTON BUILDING
SPOKANE 4, WASHINGTON
CABLE: GEORESCO

1 November, 1957

RE: Blue Mountain Project
DMEA Docket No. 4671
Contract No. Idm-E 1114

NARRATIVE REPORT

Month of October, 1957

DIAMOND DRILLING

Two holes were completed in October, and another initiated for a total of 525 feet of drilling. Hole No. 4 was completed to a depth of 301 feet. Hole No. 5 was initiated and drilled to a total depth of 362 feet. No mineralization was visible in the cores, but there was some variation in radioactivity in the cores from Hole No. 5. (See "Probing" below). The diamond drilling program has been hampered by extremely difficult drilling conditions, including caving, water loss, and badly fractured rock. One encouraging factor is the recharge of the high-level spring area which now appears to be making enough water to support the drilling program. The contractor anticipates laying a pipe line and setting up a pumping system by the early part of next week, thus dispensing with the bothersome hauling of water.

PROBING

The hole probing has been plagued with mechanical difficulties. After waiting the majority of the month for parts to arrive from Salt Lake City, the Atomic Energy Commission got their probe unit reassembled and got a probe down Hole No. 4. When the probe hit the water in the bottom of the hole, the water seeped into the cable-to-probe joint and shorted out. No record was obtained, but the operator reported observing several "good jolts" on the way down. When a new probe unit is obtained, the AEC will try again.

MISCELLANEOUS

Topographic mapping of the project area is proceeding on a continuing basis. During November, detailed geologic mapping of the features exposed in the trenching program will be initiated.

Respectfully submitted,

George B. Weaver

George B. Weaver,
Project Superintendent

GEO-RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No. 4671)

State: Washington

Hole No.: 4 - Page 1

Collar Elev.: _____

County: Stevens

Angle: 90°

Hole Started: 9-16-57

Coord.: N 13,382.37 E 11,140.88

Bearing: _____

Hole Finished: _____

.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Footage	% Core Recovery	Geology	Assay No.	Assay %
16	0	Soil and overburden.		
23	5	Badly weathered blue-green dike rock.		
26	40	Do		
29	60	Fractured dike rock. (Went to AX at 29 ft.) Drillers.		
32	50	Dike rock - some intruded quartz with fresh pyrite.		
42	50	Badly shattered dike rock.		
50	50	Do		
55	40	Fractured and recemented dike rock. (Caving badly, cemented hole.)Drillers.		
58	60	Fractured schist (?).		
61	0	Sludge of dark sand particles some qtz and abundant unidentified dark mineral.		
68	2	Sludge of light colored sand mostly qtz and feldspars (?).		
71	40	Tan, weathered schist grading into grey, fractured schist. Much intruded qtz. Some slickensiding on fracture planes.		
76	90	Grey schist w/much qtz intruded on bedding and fracture. Schistosity dips 50° to axis of hole.		
80.5	99	Do		
85.5	99	Do - some fresh pyrite in qtz injections. Dip-50°-60°		
89.5	95	Do		
94	95	Do		
98.5	95	Do		
100	95	From 98-99, Qtz vein with pyrite filling fractures - rest of run schist - no contact visible. Little Scheelite under U-V light.		

Radiometric Log

Ft. | Microamperes

0 10 20 30 40 50 60 70 80 90 100 110 120 130

GEO - RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No. 4671)

State: Washington

Hole No.: 4 - Page 2

Collar Elev.:

County: Stevens

Angle: 90°

Hole Started: 9-16-57

Coord.: N 13,382.37 E 11,140.88

Bearing:

Hole Finished: 10-2-57

.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Footage	% Core Recovery	Geology	Assay No.	Assay %
105	95	At 100 ft. qtz intrusion cuts core at angle of 15° to axis of hole. Show of Scheelite, rest of run schist.		
110	100	Grey schist w/intruded qtz. Schistosity dips 40°-50° to axis of hole. Occasional fresh sulfide in intrusions.		
114	100	Do		
119	100	Do		
126	95	Do - some fractured zones.		
129	95	Do		
134	100	Do		
140	95	Do - fracture zone - 134-135.		
145	100	Do		
151	100	Do - fracture zones at 147 and 150-151.		
155	100	Do		
158.5	100	Do - dip occasionally steepens to 60°.		
161	95	Do		
166	100	Do		
170.5	100	Do		
175.5	100	Do		
176.5	60	Do - fractured zone.		
181.5	0	Chopped out. (Drillers)		
188	95	Grey schist w/abundant intruding quartz and some pyrite - schistosity dips 50° to axis of hole.		
192	90	Do		
197	90	Do - Several 1/8-1/4" veinlets of qtz cut across perpendicular to schistosity.		
202	100	Do - Considerable fracturing parallel to axis of hole w/ greenish, feathery coatings on fracture planes - unident.		
207	35	Do		

Radiometric Log

Ft.	Microamperes
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	
130	

GEO-RESOURCE CORPORATION

DRILL LOG

Project Blue Mountain (DMEA Docket No. 4671) **State** Washington

Hole No. 4 - Page 3 **Collar Elev.** 3499.09 **County** Stevens

Angle 90° **Hole Started** 9-16-57 **Coord.** N 13,381.36 E 11,129.35

Bearing _____ **Hole Finished** 10-2-57

.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Footage	% Core Recovery	Geology	Assay No.	Assay %
212	100	Grey schist w/alternating green bands of silicified rock.		
216	95	Do		
227	80	Grey schist.		
230	90	Do - Considerable contortion of schistosity.		
232	85	Do - Thin (4 in.?) granitic dike or sill.		
238.5	50	Do		
243	50	Contact between schist and greenish, equigranular granitic rock.		
247	85	Medium grain, equigranular granite, much fracturing		
250.5	90	Do		
255	90	Do		
260	95	Contact between granite and schist at 258 Ft. Contact parallels schistosity at angle of 30° to axis.		
265	100	Dark grey to black schist w/ abundant intruded quartz.		
268	95	Do		
271.5	90	Do		
273.5	80	Do		
278	100	Do		
283	90	Do - At 281 Ft. contact w/ medium grain granite. Some fresh sulfide and abundant green staining of feldspars (chlorite?). At 282 Small inclusion of schist.		
285	50	Badly fractured granite with considerable weathering.		
287.5	75	Do		
290.1	80	Medium-to-fine-grain granite. Abundant biotite, some sulfide.		
295	100	Do - with green mineral - unidentified.		

Radiometric Log

Ft. | Microamperes

0 10 20 30 40 50 60 70 80 90 100 110 120 130

GEO-RESOURCE CORPORATION

DRILL LOG

Project Blue Mountain (DMEA Docket No. 4671)

State Washington

Hole No. 4 - Page 4

Collar Elev. 3499.09

County Stevens

Angle 90°

Hole Started 9-16-57

Coord. N 13,381.36 E 11,129.35

Bearing

Hole Finished 10-2-57

.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Footage	% Core Recovery	Geology	Assay No.	Assay %	Radiometric Log Ft.	Microamperes
297.5	75	Do - Badly fractured - some subhedral pyrite.			0	
301	90	Do - Hole bottomed at 301.			10	
					20	
					30	
					40	
					50	
					60	
					70	
					80	
					90	
					100	
					110	
					120	
					130	

GEO - RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No. 4671)

State: Washington

Hole No.: 5 - Page 1

Collar Elev.: 3517.66

County: Stevens

Angle: 90°

Hole Started: 10-2-57

Coord.: N 13,387.25 E 11,693.99

Bearing:

Hole Finished: 10-21-57

.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Footage	% Core Recovery	Geology	Assay No.	Assay %
27	0	Overburden		
31	50	Lite grey to tan quartzite - badly fractured		
34	75	Do - No bedding discernible		
36	40	Do		
38	50	Do		
39	75	Do		
45.5	0	Do - Cased to 69.5 and resumed drilling w/AX (Drlrs.)		
69.5	40	Very badly shattered and deeply weathered quartzite.		
73.5	20	Do		
75.5	40	Do		
78.75	50	Do		
81.5	25	Do		
85.8	50	Do		
86.8	95	Do		
90.8	20	Do		
92.3	30	Do		
93.6	95	Do		
95.4	90	Qtzite - more competent - med. grey color.		
98	80	Do		
101.4	80	Do		
103.25	50	Do - Fractured zone.		
107	70	Do		
109.6	85	Do		
112.1	85	Do		
115.6	65	Do		
119.3	85	Do		
122.75	90	Do		
126.8	90	Do		
129.25	95	Do		
131.3	80	Do		
132.75	25	Do - Fractured zone.		
137.1	95	Banded quartzite - Banding dips 65° to axis of hole - abundant iron oxides after pyrite along bedding planes. At 137 narrow, vuggy quartz stringer.		

Radiometric Log

Ft. | Microamperes

0 10 20 30 40 50 60 70 80 90 100 110 120 130

GEO-RESOURCE CORPORATION

DRILL LOG

Project Blue Mountain (DMEA Docket No. 4671) **State** Washington

Hole No. 5 - Page 2 **Collar Elev.** 3517.66 **County** Stevens

Angle 90° **Hole Started** 10-2-57 **Coord.** N 13,387.25 E 11,693.99

Bearing _____ **Hole Finished** 10-21-57

.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Footage	% Core Recovery	Geology	Assay No.	Assay %
141.75	95	Grey to black mottled qtzite, crudely banded in places.		
145.3	90	Do - badly fractured in last ft.		
148.3	90	Do		
152	50	Do		
154	90	Do		
157.8	85	Do		
159.7	95	Do - Banding dips 60° to axis of hole.		
165.4	95	Do		
170.2	95	Mottled greenish quartzite.		
172.8	95	Do - badly fractured at end of run.		
174.75	95	Do		
176.7	90	Do - Fractured.		
180.6	90	Do - Some banding.		
185.2	100	Do		
190.2	100	Do - More competent.		
195.2	65	Do - Some vuggy spots w/abundant muscovite and iron oxides. Some specks of sulfide.		
198.2	90	Quartzite - greenish grey - massive to rough banded.		
203.5	85	Do - At 200 narrow (1 inch) quartz stringer.		
208.2	85	Do		
211	50	Do - Badly fractured.		
215.8	85	Do Do		
218.3	85	Do Do At 216, 1 Ft. of black qtzite w/intruded biotite and quartz. One vuggy zone w/subhedral calcite.		
225	60	Do Do		
228	75	Do Do Some intruded qtz w/ fresh sulfides.		
231	85	Do		
233.75	95	Do		
237.2	95	Do		
240	85	Do		
243	0			
245.3	95	Do		

Radiometric Log

Ft.	Microamperes
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	
130	

GEO-RESOURCE CORPORATION

DRILL LOG

Project Blue Mountain (DMEA Docket No. 4671) **State** Washington

Hole No. 5 - Page 3 **Collar Elev.** 3517.66 **County** Stevens

Angle 90° **Hole Started** 10-2-57 **Coord.** N 13,387.25 E 11,693.99

Bearing _____ **Hole Finished** 10-21-57

.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Foot-age	% Core Recovery	Geology	Assay No.	Assay %
249.9	98	Massive, greenish-grey qtzite w/occasional faint banding.		
254.9	100	Do		
260	100	Do		
265	100	Do-Banding dips 50° to axis of hole.		
268.8	100	Do		
273.6	100	Do		
278	100	Do-At 276, qtz stringer 1/2" wide. Intruded qtz on fracture planes.		
282	100	Do		
287	100	Do		
289.6	100	Do		
291.6	100	Do		
293	100	Do		
298.5	95	Do		
302.2	95	Do - Abundant intruded quartz		
307.2	100	Do - Gougy fracture zone at 302		
311.7	95	Do - More fracturing.		
315.3	95	Qtzite-Banding contorted. Fractures coated w/intruded qtz and slickensided. Some fractures recemented. Gouge at 315. (Probably small fault).		
321	100	Qtzite-Greenish-grey, massive to banded. Abundant intruded quartz on fractures and in occasional stringers. Occasional slickensiding on fractures.		
324.3	100	Do		
327.6	100	Do		
332.2	100	Do - Badly fractured.		
336.5	20	Granite at 336, Med-grain, abundant biotite		
341.3	60	Do		
346.6	60	Do - Badly fractured.		
349.2	85	Do		
353.6	90	Do		
362	80	Do - Hole bottomed at 362 Ft.		

Radiometric Log

Ft.	Microamperes
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	
130	

g/ism
57

EXPLORATION PROJECT CONTRACT
GEO-RESOURCE CORPORATION
DOCKET NO. DMEA-4671
CONTRACT NO. Idm-E1114

AMENDMENT NO. 1

It is agreed this _____ day of _____, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration and Geo-Resource Corporation, parties to that certain Exploration Project Contract No. Idm-E1114 (Docket No. DMEA-4671), dated July 24, 1957, that effective July 24, 1957 the contract is amended as follows:

Along the contact exposed by the trenches not in excess of eighteen (18) holes aggregating not more than 3,000 feet shall be drilled. The holes shall be collared within 150 feet of the contact, and the spacing between holes shall not be less than 200 feet nor more than 300 feet. One hole shall be drilled on the granite side of the contact and the remainder drilled on the metasediment side shall be placed to intersect the contact at a depth of approximately 200 feet.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, nor any item of allowable cost which is expressly designated "Maximum".

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

BY _____
Administrator, Defense Minerals
Exploration Administration

GEO-RESOURCE CORPORATION

By _____

Title _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 18 1957

DATE	INITIALS	CODE
11/18	C	220
18	Com	100
11/19	[illegible]	

November 15, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Dear Mr. Selfridge:

Enclosed are four copies each of two interim inspection reports dated November 8, 1957 by Galen G. Waddell, Mining Engineer of the Bureau of Mines, and William C. Prinz, Geologist of the Geological Survey:

Docket No. DMEA	
4671	Geo-Resource Corporation, Stevens County, Wash.
42	Taylor-Knapp Co., Granite County, Montana.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

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DATE | INITIALS | CODE

November 8, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: G. G. Waddell, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4671 (uranium), Geo-Resource Corporation, Stevens County, Washington, Contract No. Idm-E1114

Inspection of the property was made November 5, 1957, with E. W. Parsons, Bureau of Mines Engineer, and H. F. Albee, Geologist, U. S. Geological Survey, accompanied by Ben and Bill Weaver for Geo-Resources Corporation.

Following is a summary of the hole depths and intersections of the meta-sediment-granite contact up to the date of inspection:

Hole No.	Total Depth	Contact Zone
1	154'	132'
2	102	No (in granite)
3	111	73
4	301	280
5	362	336
6	100 (present hole)	
Total	1130	

No uranium minerals were identified in any of these holes. Holes Nos. 1, 2 and 3 have been radiometrically probed by the AEC. The results gave no indication of abnormal radioactivity. In attempting to probe hole No. 4 the probe shorted-out in the water; thus, neither hole No. 4 nor hole No. 5 have been radiometrically probed. Hole No. 6 was still in the drilling stage at the time of inspection.

Two of the drill holes were deeper than the proposed 200 feet, but within the 150 feet of the contact. The field examiners recommend that these holes be approved as information about the contact zone at depth was gained.

The status of the contract is:

Date of contract: July 24, 1957
Termination date: June 1, 1958
Amount of contract: $45,960.00
Amount spent: 12,399.94 (thru Oct. 1957)

Stage I	Authorized	Completed	Vouchered
Bulldoze roads	60 hrs.	60 hrs.	60 hrs.
" trenches	80 hrs.	80 hrs.	80 hrs.
" drill site prep.	40 hrs.	34 hrs.	34 hrs.
Bulldozer transportation	$100	$100	$100
Core drilling	3,000 ft.	972½ ft.	919½ ft.
Cementing, reaming, etc.	100 ft.	100 ft.	100 ft.
Driving standpipe	100 ft.	157.5 ft.	100 ft.
Standby time	24 hrs.	--	--

G. G. Waddell

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Waddell

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

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DMEA
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DATE	INITIALS	CODE
11/18	C	220
		130
11/19	FMM	700

November 13, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 4671 - Uranium
Geo-Resource Corporation
Blue Mountain Mine
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Selfridge:

Enclosed are two copies of a letter dated November 4, 1957, from William D. Weaver, President of Geo-Resource Corp., requesting authorization to drill six of the diamond drill holes remaining under the contract and requesting an amendment to the contract to permit drilling of the holes to depths greater than 200 feet with Field Team approval so long as the total of 5,000 feet authorized under Stages I and II of the contract is not exceeded.

The project was based on the results of geochemical analysis of soil samples taken along alluvial dispersion trains below a granite-sedimentary contact known to contain very significant ore deposits at the Midnite mine. The exact location and attitude of the contact was not then known; therefore a two-stage program was recommended to test the area along and near the contact. In Stage I seven trenches were to be bulldozed to determine the location and, if possible, the surface attitude of the contact. A row of drill holes was laid out in alternate trenches to profile the contact and to explore the ore possibilities on the sedimentary side of the contact. With the location and attitude of the contact thus established, six additional diamond drill holes were proposed between trenches to explore to the contact at a depth of 200 feet. Stage II provided for additional drilling should Stage I be successful.

Because of the steepness of the slopes it was not practical to put in the trenches precisely as shown on the map accompanying the contract; however, the Operator did, in good faith, expose the contact

with seven trenches. Because the line of the contact was not as regular as had been expected some of the trenches were necessarily closer spaced than the contract called for The trenches indicated a dip of the contact toward the sediments, ranging from 80° N. in trench No. 2 to 55° W. at the east end of the project area. Drill holes No. 1 through 6 confirmed the constant direction of the dip.

All the ore found at the Midnite mine has been along the contact and in the sediments. None has been found in the granite. With the location and attitude of the contact established by the work completed, it would now be a waste of money to drill any more of the holes originally planned to start in the granite. Before the attitude of the contact was definitely established, however, it was necessary to exceed the maximum depth of 200 feet in two holes, hole No. 4 which was drilled to a depth of 301 feet, and No. 5 which was drilled to a depth of 362 feet. Hole No. 4 cut the contact at 281 feet and hole No. 5 cut it at 336 feet. Because of a granitic lens cut in hole No. 4, it was necessary to drill beyond the true contact in this hole and in hole No. 5. There remain 246 feet of drilling originally proposed for the holes starting in the granite. We recommend that this 246 feet of drilling be allowed to cover part of the excess drilling necessary for holes No. 4 and 5.

The depth of ore bodies found at Midnite ranges from grass roots to 400 feet, with secondary minerals above the water table and primary minerals below. The only known control appears to be the contact; therefore, we can see no advantage to drilling deeper than the 200 feet as recommended and no particular reason to drill to the altitude of the surface geochemical anomalies as proposed by the Operator.

We recommend that Exhibit A, Description of the Work, Stage I of the contract be amended to delete paragraph 3, which defines the locations of the drill holes, and substitute therefor a provision to allow drilling up to 18 holes within 150 feet of the contact; the space between holes shall not be less than 200 feet nor more than 300 feet and the total amount of drilling in all holes shall not be more than 3,000 feet. One hole shall be started in granite, all others shall be started in the sediments. After the attitude of the contact has been reasonably determined, allowing the first 6 holes for this purpose, the remaining holes shall be so placed as to cut the contact at a depth of about 200 feet. Stage II should not be changed.

By Field Team Region I

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Stephen A. Zoldoski

for Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USBM(AD)
Albee

GEO-RESOURCE CORPORATION

TEL. MA. 4-9654

SUITE 525-528 HUTTON BUILDING
SPOKANE 4, WASHINGTON

CABLE: GEORESCO

4 November, 1957

(2nd orig.)

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DMEA
RECEIVED NOV 18 1957

DATE	INITIALS	CODE

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane, Washington

RE: Request for Amendment to DMEA Loan - Docket No. 4671

Dear Mr. Weissenborn:

You will find attached a plan of the Blue Mountain project, Section 10, T. 29 N., R. 38 E., Stevens County, Washington. On this plan there have been laid out six (6) additional drill holes. It is proposed to drill these holes as the next step of the project. They conform very closely to the Plate 1 program shown on Docket No. 4671. Field Team approval is requested for these holes to be drilled to a depth of 200 feet plus.

You will also find enclosed Section AA Prime, which has been drawn nearly normal to the contact near drill holes No. 1 and 2. It shows the attitude of the contact, the drill holes, as well as the geochemical anomalies in the alluvial dispersion train below the contact. The completion of accurate topographic mapping and other surveys have just permitted the completion of this section. As can be seen, the drill holes lack more than 150 feet of penetrating the contact zone at the elevation of the geochemical anomalies. It is felt that it will be necessary to drill deeper holes along the contact to trace the source of the mineralization which has produced the anomalies in the soil. With this in mind the following amendment to our contract is requested:

(A) That drill holes shown on the attached plan be drilled deeper than 200 feet if necessary to reach the contact zone.

(B) That deeper drilling on Section 10 be permitted so long as it does not exceed the total footage authorized by the loan.

(C) That deeper drilling be made subject to approval of the Field Team here in Spokane in the same manner as the position of the holes is now handled.

RECEIVED
NOV 4 1957
U. S. G. S.
SPOKANE, WASH.

Sincerly yours,

William D. Weaver

William D. Weaver,
President

WDW:md
Enc. 2
cc: U.S. Bureau of Mines
Spokane, Washington

2 MAPS in envelope

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT

Date 11-14-57

Referred to:

1. ~~Mr. Robertson~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. Docket Control Mails and File.
5. Division
6. Docket Control Mails and File.
7. 700

Note comments in report regarding:

1. This outfit was
2. reported to have
3. "made a "strike"
4. recently —
On adjoining property

and take appropriate action.

- - - - - - - -

Action taken by Division:

None. Waiting for F.T. recommendations promised in letter dated Oct. 23, 1957

Hobart E. Adams

gb

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DMEA
RECEIVED NOV 14 1957

DATE	INITIALS	CODE
11-14	gs	220
14	[illegible]	100
11/15	FMM	

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

September 30, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From : Howard F. Albee, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-4671 (Uranium) Geo-Resource Corp., Blue Mountain Project, Sec. 10, T. 29 N., R. 38 E., W. M. B., Stevens County, Washington, Contract No. Idm-E1114

Inspections of the property were made September 16, 1957 with G. G. Waddell, U. S. Bureau of Mines, and on September 30, 1957, with William D. Weaver, president of the operating corporation.

As of September 16, the operator had completed 7 bulldozer cuts designed to search for and expose the contact between the granite and metasediments (pl. 1). The contact was exposed at 11 places, including road cuts and previous dozer cuts, thus delineating very well the trace of the contact across part of the property. The contact was found to dip much steeper than was previously thought. Where the contact trends northerly the dip is in the range of 45° westerly and where it trends easterly the dip is in the range of 70° northerly. Several basic dikes and at least one aplite dike were exposed in the metasediments, but their attitudes could not be determined.

Three drill holes had been completed and a fourth one was down about 10 feet. One drill hole had been collared in the granite and three were collared in the schist. No anomalies were noted in the cores. Because of the steeply dipping contact and the rise in topography above the contact, the holes should be drilled to depths greater than those authorized in the contract, in order to explore at or closer to the contact.

Drill hole No. 1, collared in the metasediments about 50 feet from the contact, bottomed at 154 feet and penetrated the contact at 132 feet. Drill hole No. 2 was collared in the granite and bottomed at about 100 feet. Drill hole No. 3, collared in the metasediments about 50 feet from the contact, penetrated the contact at 73 feet and bottomed in the granite at 111 feet.

Map in Image

It is recommended that no further holes be collared in the granite unless uranium mineralization is found in holes drilled through the metasediments.

The operator reported uranium showings found in a dozer cut on section 15 while doing work on his own account. Section 15 is contiguous to section 10 and is leased by the operator. This showing was examined September 30, 1957 as well as progress on the contract work.

Drill hole No. 4, which was about 10 feet deep on September 16, was still being drilled. It is collared in the metasediments about 50 feet from the contact and was 232 feet deep and still in metasediments. The rock in the lower part of the hole is quartzite containing considerable pyrite and streaks and contorted bands of greenstone. The structure is massive but sparse fractures filled with calcite are present. In a few places silica, strongly colored by hematite, was noted associated with the greenstone. The operator reports specks of autunite are visible under fluorescent light through most of the core.

The autunite showing in section 15 is exposed in a dozer cut in schist, (fig. 1). The exposed rock shows three distinct sets of joints. One set strikes N. 4°-10° E. and dips from 56°-65° east, one set strikes N. 80°-90° W. and dips about 75° south, and one set strikes N. 50° W. and dips vertically. The bedding and foliation strike N. 10°-12° E. and dips 48°-49° east.

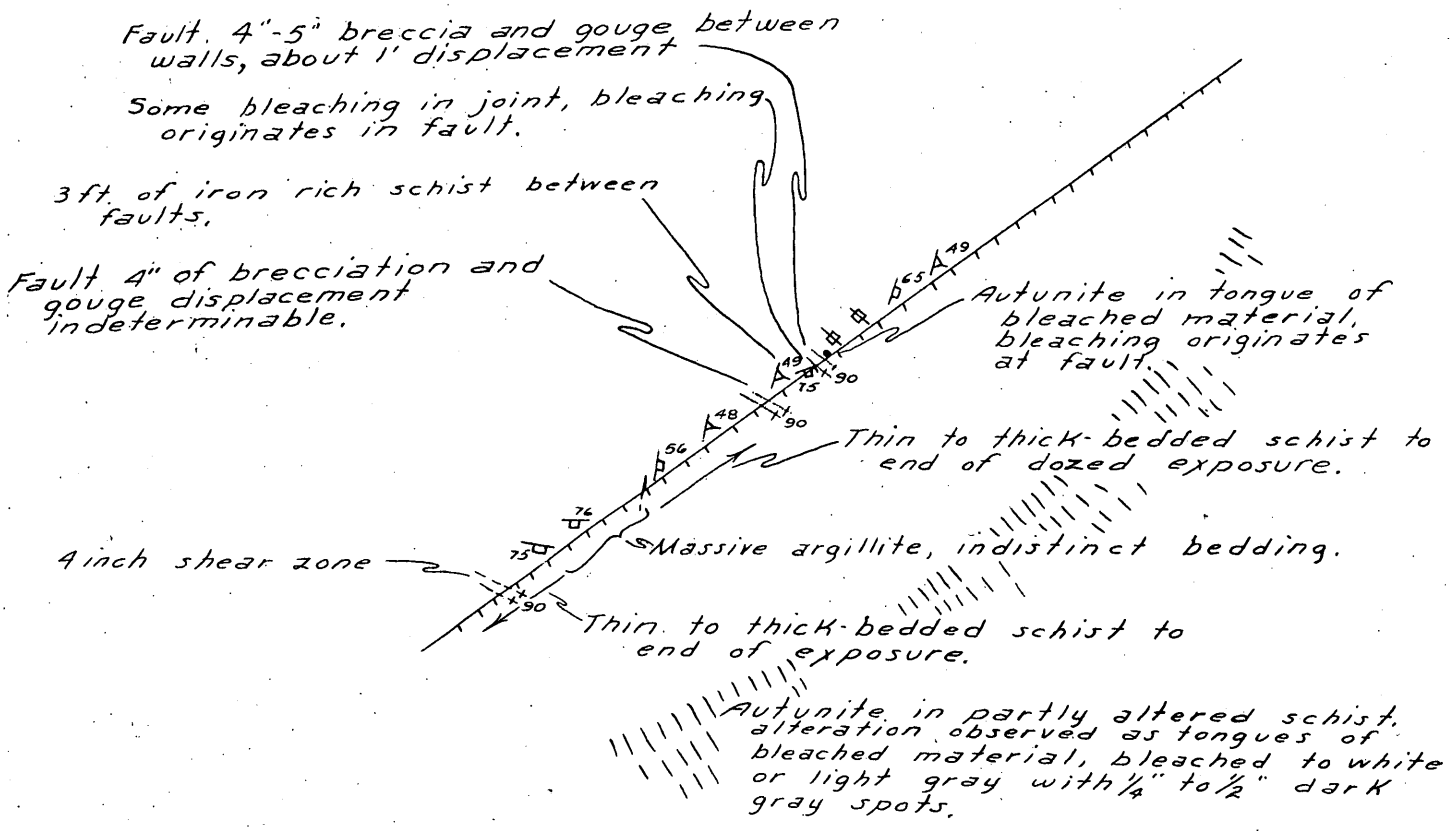
The rock is cut by two faults and a shear zone that strikes to the northwest and dips vertically. The walls of the faults are separated by 4-5 inches of breccia and gouge and the two faults are separated by 3 feet of thin-bedded schist. The schist between the faults is rich in iron that probably was introduced from the faults. One fault shows no evidence of movement other than the brecciation and gouge, but the beds on either side of the northeastern fault are offset vertically about 1 foot.

The autunite is in a tongue of altered schist adjacent to the northeastern fault. The alteration is observed as a tongue of bleached material with the bleaching originating at the fault and following the bedding outward for 18-24 inches. Similar alteration also follows a joint outward toward the southeastern fault. This joint was one of several closely spaced joints found only between the two faults. This set of j oints strikes about S. 60° W. and dips 75° southeast and although the joints reach from one fault to the other, the bleaching was seen outward only from the northeastern fault.

A bleached zone about a foot thick and parallel to the bedding, extends from between the faults to the floor of the cut beyond the northeastern fault. The color of these bleached beds is yellowish gray in contrast to the white to light gray of the previously described bleached zones. As the bleached beds are offset by the northeastern fault the bleaching was probably earlier than that of the mineralized bleached material.

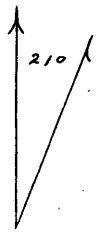
Enclosures

Distribution:
DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Docket
Albee



EXPLANATION

- strike and dip of bedding and lineation
- strike and dip of joint
- Wall of bulldozer cut



Map showing the structure of the bedrock in a bulldozer cut.
Sec. 15, T. 29 N., R. 38 E.

Geo-Resources Property

Stevens County, Washington
H. F. Albee

0 10 20 30 Feet

FIGURE 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

October 30, 1957

DMEA
NOV 1957
11/4 C 220
~~11/4 FMM 700~~

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Sec. 15, T. 29 N., R. 38 E., W. M.
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Selfridge:

As mentioned in our letter of October 23, 1957, enclosed are the original and four copies of Consent to Lien and Subordination Agreement signed by Cline E. Tedrow, President of Universal Mining Corporation.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
USBM (AD)
Albee

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

FILE COPY
DMEA
RECEIVED OCT 28 1957

October 23, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Application for more work
Docket No. DMEA-4671 (Uranium)
Geo-Resource Corp.
Blue Mountain Mine
(Sec. 15, T. 29 N., R. 38 E., W. M.)
Contract No. Idm-E1114

Dear Mr. Selfridge:

Enclosed are two copies of an application from Geo-Resource Corporation for additional work under Contract Idm-E1114, Docket No. DMEA-4671. This application was delivered to the Spokane office by Mr. Weaver on October 11, 1957. The Consent to Lien and Subordination Agreement was incomplete and it will be forwarded later.

At a conference in the Spokane office, October 21, 1957, Mr. Weaver was told frankly that the proposal as submitted was far too elaborate for the Field Team to recommend in good conscience. Discussions are in progress to determine whether a feasible but drastically reduced program cannot be worked out.

By Field Team, Region I

A. E. Weissenborn by [illegible]
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USBM (AD)
Albee

GEO-RESOURCE CORPORATION
TEL. MA. 4-9654
SUITE 525-528 HUTTON BUILDING
SPOKANE 4, WASHINGTON
CABLE: GEORESCO

11 October, 1957

Mr. A. E. Weissenborn, Executive Officer
D.M.E.A. Field Team, Region 1
Northwest District
South 157 Howard
Spokane, Washington

Dear Mr. Weissenborn:

Enclosed please find four (4) copies each of the following items:

- Letter of request for extension of DMEA Contract Idm-E 1114, Docket No. 4671.
- Consent to Lien and Subordination Agreement
- Warranty Mining Deed
- Legal receipts for filing chain of title documents.
- Operating Agreement
- Map of part of Blue Mountain Project Area, Stevens County, Washington.

All of the above documents cover Section 15, Township 29 North, Range 38 East, W.M.

Thank you.

Very truly yours,

Richard Weaver,
Executive Vice President

RW:md
Encs

GEO-RESOURCE CORPORATION

TEL. MA. 4-9654 SUITE 525-528 HUTTON BUILDING CABLE: GEORESCO
SPOKANE 4, WASHINGTON

RECEIVED
by hand
OCT 11 1957
U. S. G. S.
SPOKANE, WASH.

11 October, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 20 1957

TO: Mr. A. E. Weissenborn, Executive Officer
D.M.E.A. Field Team, Region 1
Spokane, Washington

FROM: Geo-Resource Corporation
Suite 525-528 Hutton Building
Spokane 4, Washington

RE: Extension of DMEA Contract No. Idm-E 1114
Docket No. 4671

Dear Sir:

Section 10, Township 29 North, Range 38 East, W.M., the property which is the subject of DMEA Contract No. Idm-E 1114, is joined on its south boundary by Section 15, T. 29 N., R. 38 E., W.M., which is also held under an operating contract by Geo-Resource Corporation. (See Enclosure No. 1, "Operating Agreement", 4 copies). At the time of application for DMEA assistance, this corporation did not hold this land under contract, although the section had been examined and tested geochemically on behalf of Universal Mining Corporation, the property owner. The results of this work were set forth in our recent report which accompanied the application for assistance on Section 10, and will be found on pages 22-23, inclusive, and Plate No. 4 in the pocket.

The results from Section 15 were extremely favorable, one sample line, (Group J, pages 29, 30 and 31) showing 30 samples containing over 100 parts per million; of which 15 samples showed over 200 parts per million. Two of these samples showed 300 parts per million, and two of them tested 400 and 500 parts per million, respectively.

As a result of these findings, Geo-Resource Corporation acquired the property early this spring. Although the section had been gone over repeatedly by engineers and geologists with scintillometers, and in fact had been checked by our own staff, it was decided that following the general lines of approach indicated by our geochemical program, a "buried-probe" survey of certain areas might yield definitive information concerning possible differentials in uranium content in the schists.

The first area chosen was not the one yielding the highest geochemical anomalies. The choice was made because of the fact that this sharp-spined ridge cuts across the bedding at

right angles, indicating possible structural and/or hydrothermal features controlling topography. A scintillometer traverse of the roadcut showed an increase of .004 Mr/Hr over background. Following west on the strike of the ridge and burying the probe to a depth of twelve inches showed an area to be weakly radioactive (.027 Mr/Hr over a background of .018 Mr/Hr). Subsequent handtrenching brought the readings up to .040 Mr/Hr.

After completion of the DMEA approved hours of bulldozing on Section 10, the company hired the bulldozer for two days to open the new find. At the roadcut, after deepening, a wet assay showed 0.042% uranium in a specimen which contained no megascopically visible uranium. Six hundred feet west on the strike of the ridge, an assay showed 0.13% uranium, and autunite was visible in the specimen. Since then, 4 feet under the surface, high-grade specimens of autunite have been found which, naturally, would give startling but misleading assay results.

The mineralized rock is adjacent to two parallel fracture systems in the steeply eastward dipping schists, and hydrothermal solutions (containing predominately silica and iron minerals?) have altered and hardened a zone approximately 4 to 6 feet wide which crosscuts the north-south strike of the beds at a moderately acute angle. Surface indications lead us to believe that this exposure and the roadcut exposure represent different but parallel structures, and that others may be found.

Further west, on the north slope, much evidence of extensive faulting and subsequent hydrothermal activity has been found in the float. In this area the fracture system is obscured in its westerly extension by mantle rock which may be 25 to 30 feet deep in places. In the area of interest the rock has not been exposed.

The contact, where exposed by our work on Section 15, is steep to vertical, and from our highest exposure of mineralization might be at a depth of 1000 feet or more. Sections using assumed contact dips of 60° indicate that in many instances the contact, in zones favorable for mineralization, may be at depths of 800 to 1000 feet. ?

Due to the favorable nature of this discovery and the potential for commercial mineralization, Geo-Resource Corporation desires to extend the contract on Section 10 so as to include this contiguous ground. We feel that any production on Section 15 should be made to pay the government's participation on Section 10 since we have the operation of both sections if an extension to the existing contract can be effected soon enough to allow us to initiate our work this season.

PROGRAM

STAGE I

Bulldozer Work:
(A) We wish to open the contact at 300 to 400 foot intervals by means of eleven (11) trenches approximately 200 feet in length.
(B) Open the ridge top by a trench 1100 feet in length cross-cutting the beds.
(C) Expose the rock units on the adjoining ridge to the south above the area which yielded the highest geochemical anomalies and the spring, the water from which yielded an anomaly when tested by the U.S.G.S.
(D) Doze open the road so as to expose rock in place at all points.
(E) Construct short access roads and drill sites.

Drilling:
(A) Core drill six (6) holes on the discovery ridge and four (4) on the adjoining ridge of a minimum of 250 feet and a maximum of 1000 feet or a possible total of 10,000 feet of drilling.

Personal Services:
(A) Supervisor
(B) Topographic and geologic mapping of the schists and contact zones, and workings.
(C) Buried probe scintillometer survey of contact zones and schists.
(D) Progress and topographic maps.

STAGE II

Bulldozer Work:
(A) Access roads and drill sites.

Drilling:
(A) 10,000 feet of drilling, on location and to depths approved by the local U.S.G.S. office.

Personal Services:
(A) Supervisor
(B) Mapping Crew
(C) Drafting

This program is designed to yield the maximum amount of information for the physical conditions with which we are working. The work on Section 10 has indicated the need for three things:

(A) Far more extensive bulldozer work to cope with the conditions of extremely deep (up to 30 feet) mantle rock and slumped material.

(B) Drilling to much greater depths than previously anticipated.

(C) Much more allowance for driving standpipe, cementing and drilling out or reaming and casing.

This extension application in its present form, will avoid the possibility of obtaining only incomplete and inconclusive geologic information. This ground is ideally suited to the clear determination of the nature of the relationship existing between the factors of structure, contact, and mineralization in this type setting. This method of approach to the exploration of the ground should yield sufficient definitive geologic data to allow accurate interpretation of results, and to the possible culmination in commercial production of ores of uranium.

COST SCHEDULE

STAGE I (All estimates are maximums)

Category (1) Independent Contracts

Bulldozer work:	
Access Roads, 100 Hrs. @ 17.50/Hr.	$1,750.00
Trenches, 500 Hrs. @ 17.50/Hr.	8,750.00
Road Widening, 100 Hrs. @ 17.50/Hr.	1,750.00
Drill Site Preparation, 40 Hrs. @ 17.50/Hr.	700.00
Transporting Dozer, 100 Mi. @ 1.00/Mi.	100.00
Diamond Drilling:	
Core Drilling, 10,000 Ft., Bottoming in AX @ 8.10/Ft.	81,000.00
Driving Standpipe, 1000 Ft. @ 7.00/Ft.	7,000.00
Cementing and Drilling out or Reaming and Casing, 1000 Ft. @ 3.75/Ft.	3,750.00
Standby Time, 72 Hrs. @ 7.75/Hr.	558.00
Category (1) Total:	$105,358.00

Category (2) Personal Services

Subcategory (A) Supervisor	
Supervisor, 5 Mos. @ 600.00/Mo.	$3,000.00
Subcategory (B) Technical Services	
Consulting Geologist, 3 days/Mo., 15 days @ 50.00/Day	750.00
Instrument Man, 15 days/Mo., 75 days @ 3.00/Hr. - 24.00/day	1,800.00
Rodman, 15 days/Mo., 75 days @ 2.75 Hr. - 22.00/day	1,650.00
Draftsman, 10 days/Mo., 50 days @ 2.75/hr. - 22.00/day	1,100.00

Subcategory (B) Technical Services - Continued		
Scintillometer Operator, 60 days @ 2.75/Hr. - 22.00/day	$1,320.00	
Subcategory (C) Labor	None	
Category (2) Total:	$9,620.00	
Category (3) Operating Material & Supplies		
Gasoline, 2000 Gallons @ 36¢/Gal.	720.00	
Category (4) Operating Equipment		
Subcategories (A) & (B) Rental & Purchases	None	
Subcategory (C) Depreciation		
Jeep 105 Truck, 5 mos. @ 33.33/Mo.	166.65	
Category (5) Rehab. & Repair		
Category (6) Buildings, Etc.		
Category (7) Miscellaneous		
Payroll Taxes, 14.9% of Salaries (9620.00)	1,433.38	
Chemical analyses for U_3O_8 content of 500 samples @ 5.00/Ea.	2,500.00	
1000 Core Boxes (Cardboard) @ 1.00/Ea.	1,000.00	
1000 Sample Sacks @ 35¢/Ea.	350.00	
Categories 3 thru 7 Total:	$6,170.03	
Estimated Total Cost, Stage I:		$121,148.03

STAGE II

Category (1) Independent Contracts	
Bulldozing Work:	
Access Roads and Drill Site Preparation, 80 Hrs. @ 17.50/Hr.	$1,400.00
Transporting Dozer, 100 Mi. @ 1.00/Mi.	100.00
Diamond Drilling:	
Core Drilling, 10,000 Ft. Bottoming in AX @ 8.10/Ft.	81,000.00
Driving Standpipe, 1000 Ft. @ 7.00/Ft.	7,000.00
Cementing and Drilling out or Reaming and Casing, 1000 Ft. @ 3.75/Ft.	3,750.00
Standby Time, 72 Hrs. @ 7.75/Hr.	558.00
Category (1) Total:	$93,808.00

Category (2) Personal Services	
Subcategory (A) Supervision	
Supervisor, 4 Mos. @ 600.00/Mo.	$2,400.00
Subcategory (B) Technical Services	
Consulting Geologist, 3 days/Mo., 12 days @ 50.00/day	600.00
Instrument Man, 15 days/Mo., 60 Days @ 3.00.Hr. - 24.00/day	1,440.00
Rodman, 15 days/Mo., 60 Days @ 2.75/Hr. - 22.00/day	1,320.00
Draftsman, 10 days/Mo., 40 Days @ 2.75/Hr. - 22.00/Day	880.00
Subcategory (C) Labor	None
Category (2) Total:	$6,640.00
Category (3) Operating Materials & Supplies	
Gasoline, 2000 Gal. @ 36¢/Gal.	720.00
Category (4) Operating Equipment	
Subcategories (A) & (B) Rental & Purchases	None
Subcategory (C) Depreciation	
Jeep 105 Truck, 4 Mos. @ 33.33/Mo.	133.32
Category (5) Initial Rehab. & Repair	None
Category (6) New Buildings, Etc.	None
Category (7) Miscellaneous	
Payroll Tax, 14.9% of Salaries (6,640.00)	989.36
Chemical Analyses for U_3O_8 of 500 Samples @ 5.00/Sample	2,500.00
1000 Cardboard Core Boxes @ 1.00/Ea.	1,000.00
1000 Sample Sacks @ 35¢/Ea.	350.00
Categories (3) thru (7) Total:	$5,692.68
Estimated Total Cost, Stage II:	$106,140.68
Estimated Total Cost, Stage I:	121,148.03
Estimated Total Cost of Program:	$227,288.71

GEO-RESOURCE CORPORATION

William J. Weaver
President

ATTEST:

Richard Wilson
Secretary

STATE OF WASHINGTON)
:
County of Spokane)

On this eleventh day of October, in the year 1957, before me personally appeared William D. Weaver and Richard Weaver, known to me to be the President and Secretary, respectively, of the corporation that exeduted the instrument, and acknowledged to me that such corporation executed the same.

In witness whereof I have hereunto set my hand and fixed my official seal the day and year in this certificate first above written.

Mable L. Davis
Notary Public in and for the State of Washington, residing in Spokane.

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 28 1957

DATE	INITIALS	CODE

[redacted]956

WARRANTY MINING DEED

THIS INDENTURE made this 29th day of June, 1956, between TAYLOR LAND & LIVESTOCK COMPANY, a corporation organized under the laws of the State of Washington, and GLADYS McGREGOR, individually and as Executrix of the Estate of Alexander Taylor McGregor, deceased, and as Trustee under the Will of Alexander Taylor McGregor, deceased, and RICHARD S. MUNTER, as Trustee under the Will of Alexander Taylor McGregor, deceased, parties of the first part, and UNIVERSAL MINING CORPORATION, organized under the laws of the State of Washington, party of the second part,

W I T N E S S E T H:

That the said parties of the first part, for and in consideration of twenty-five thousand (25,000) shares of the capital stock of the said Universal Mining Corporation, of the par value of $2.00 per share, in hand paid by the party of the second part to the Taylor Land & Livestock Company, and in consideration of fifty-five thousand (55,000) shares of the capital stock of said Universal Mining Corporation of the par value of $2.00 per share, in hand paid by the party of the second part, to the Estate of Alexander Taylor McGregor, deceased, the receipt whereof is hereby acknowledged by said parties of the first part, do hereby grant, bargain, sell and convey unto the said party of the second part and to its successors and assigns,

all of the sub-surface rights, ore and minerals and the interest therein of every description underlying the following described parcels of land, situate in the County of Stevens and State of Washington, to-wit:

> Sections Three (3), Five (5), Nine (9), Fifteen (15) and Seventeen (17), and Lots One (1), Two (2), Three (3) and Four (4), in Section Twenty-one (21), and the Southwest Quarter (SW$\frac{1}{4}$) of the Northwest Quarter (NW$\frac{1}{4}$) of Section Thirteen (13), all in Township Twenty-nine (29) North, Range Thirty-eight (38), E. W. M., and the Northeast Quarter (NE$\frac{1}{4}$) and the South Half (S$\frac{1}{2}$) of Section Twenty-nine (29), in Township Thirty (30) North, Range Thirty-eight (38), E. W. M., in Stevens County, Washington, containing 3800 acres more or less,

and

> The Southeast Quarter (SE$\frac{1}{4}$) of the Southwest Quarter (SW$\frac{1}{4}$), the Northwest Quarter (NW$\frac{1}{4}$) of the Southeast Quarter (SE$\frac{1}{4}$) and the South Half (S$\frac{1}{2}$) of the Southeast Quarter (SE$\frac{1}{4}$) in Section Eighteen (18), and Lots One (1), Two (2), Three (3) and Four (4) in Section Twenty (20), all in Township Twenty-nine (29) North, Range Thirty-eight (38), E. W. M., in Stevens County, Washington, containing 310 acres more or less.

Together with the exclusive right and privilege of entering upon said parcels of land at any time hereafter to dig and mine for ore and minerals of every description, wherever the same may be found and wheresoever the said party of the second part, its successors and assigns, may deem proper to excavate for the same, and to take out and remove, ship, sell, have and dispose of all minerals and metallic ore of every description therefrom, with the right of ingress and egress upon and over said parcels of land as may be necessary in conducting mining operations thereon in a full and convenient manner, together with the right to build, use and operate roads, mining camps, mills and

other facilities necessary for mining and removing minerals therefrom, together with necessary stripping and the right to dump waste rock and other materials removed in its mining operations.

Provided, that the rights hereby granted shall be subject to all rights granted and conveyed by the parties of the first part to the White Pine Sash Company in that certain Timber Purchase Agreement dated June 9, 1951, and the Warranty and Quit Claim Deed delivered in connection therewith.

Provided further, that the rights hereby granted shall not unreasonably interfere with the right of the parties of the first part, their successors and assigns, to the use of the roads thereon and their surface rights in said land, including farming, grazing, logging and lumbering thereon; and all timber removed therefrom by the party of the second part, its successors or assigns, in connection with its operations thereon shall be and remain the property of the parties of the first part, their successors and assigns.

Provided further, that the party of the second part, its successors and assigns, shall at all times conduct its operations thereon in a miner-like manner, and shall not increase the cost of maintaining the existing roads thereon without arrangements being made to pay for such increased cost.

TO HAVE AND TO HOLD the same to the party of the second part, its successors and assigns forever. And that

said parties of the first part, for themselves, their heirs, executors, administrators, successors and assigns do hereby covenant with the said party of the second part, its successors and assigns, that they are seized in fee of the lands and premises aforesaid and have good right to sell and convey the same and the rights in and to said lands herein granted in the manner and form aforesaid, and that the same are free from encumbrances.

And said parties of the first part will warrant and defend the grant herein made of the above described lands and premises in the quiet, peaceable and exclusive possession of the said party of the second part, its successors and assigns, against all persons lawfully claiming or to claim the whole or any part thereof.

IN TESTIMONY WHEREOF, the said parties of the first part have hereunto set their hands and affixed their seals the day and year first above written.

TAYLOR LAND AND LIVESTOCK COMPANY

By Gladys McGregor
President

(Corporate Seal)

Attest:
Richard S. Wheeler
Secretary

Gladys McGregor
Gladys McGregor, Individually

Gladys McGregor
As Executrix of the Estate of
Alexander Taylor McGregor, deceased

Gladys McGregor
As Trustee under the Will of
Alexander Taylor McGregor, deceased

Richard S. Munter
As Trustee under the Will of
Alexander Taylor McGregor, deceased

STATE OF WASHINGTON)
: ss.
County of Spokane)

On this 29th day of June, 1956, before me, a Notary Public in and for the above named County and State, personally appeared GLADYS McGREGOR and RICHARD S. MUNTER, to me known to be the President and Secretary respectively of the corporation that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and each on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Justin C. Mahoney
Notary Public in and for the State
of Washington, residing at Spokane, Wn.

STATE OF WASHINGTON)
: ss.
County of Spokane)

I, the undersigned, a Notary Public in and for the above named County and State, do hereby certify that on this 29th day of June, 1956, personally appeared before me GLADYS McGREGOR, individually and as Executrix and Trustee of the Estate of Alexander Taylor McGregor, Deceased, to me known to be the individual described in and who executed the within instrument as such individual, Executrix and Trustee, and acknowledged that she as such individual, Executrix and Trustee signed and sealed the same as her free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal the day and year last above written.

Justin C. Mahoney
Notary Public in and for the State
of Washington, residing at Spokane, Wn.

STATE OF WASHINGTON)
: ss.
County of Spokane)

I, the undersigned, a Notary Public in and for the above named County and State, do hereby certify that on this 29th day of June, 1956, personally appeared before me RICHARD S. MUNTER as Trustee of the Estate of Alexander Taylor McGregor, Deceased, to me known to be the individual described in and who executed the within instrument as such Trustee, and acknowledged that he, as such Trustee, signed and sealed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal the day and year last above written.

Justin O. Maloney
Notary Public in and for the State of Washington, residing at Spokane, Wn.

E306402

INDEXED ✓ RECORDED ✓
COMPARED ✓ PAGED ✓
STATE OF WASHINGTON } ss
COUNTY OF STEVENS
FILED OR RECORDED
VOL. 158 OF Deeds
PAGE 523 REQUEST OF
William D. Weaver
DEC 19 1956 at 12:12 P.M.
HAZEL EMERY
COUNTY AUDITOR
Lucile Helt
DEPUTY

MAIL TO %
Mine Consultants Inc.
528 Hutton Bldg.
Spokane, Wash.

$4.55

STEVENS COUNTY
DEC 19 1956
CHESTER A. HILLS
COUNTY TREASURER

REAL ESTATE
EXCISE TAX
AMT. Pd. 6.17
RECT No. 23412

Index in M. D.

CUSTOMER'S COPY

TREASURER'S OFFICE, STEVENS COUNTY, WASH.

Make Remittance Payable to ~~[illegible]~~, County Treasurer,
Box 2165 Spokane 10, Washington

This is a Receipted Bill for Excise Tax on Real Estate Sale When Stamped by County Treasurer

STEVENS COUNTY 7347
DEC 19 1956
CHESTER A. HILLS
COUNTY TREASURER

Date of Sale or Transfer June 29, 1956

Name of Seller Taylor Land & Livestock Co. and Gladys McGregor, Individually & as Executrix of Estate of Alexander Taylor McGregor; dec'd, and as Trustee under Will of " McGregor

Address Empire State Building

Name of Purchaser Universal Mining Corporation

Address 528 Hutton Bldg., Spokane 1, Wash.

Description of Property Involved Mineral rights in Sec. 3, 5, 9, 15, 17, parts of 21 and 13, T. 29 N., R. 38 EWM, and part of Sec. 29, T. 30 N., R. 38 EWM. Parts of Sec. 18 and 20, T. 29 N., R. 38 EWM, all in Stevens County, Washington.

Nature of Transfer (Explain fully) Deed to mining rights only.

Gross Sales Price $ 616.50
Meaning — Equity plus all unpaid encumbrances—(See Sec. 90RD No. 87)

Excise Tax - $ 6.17

Penalty - -

AFFIDAVIT OF SELLER Total - - $

The undersigned seller being first sworn, on oath, says that the foregoing information is a true and correct statement of the facts pertaining to the transfer of the above described real estate.

William D. Weaver
Signature of Seller

Subscribed and sworn to before me this 19th day of Dec. 1956

Chester A. Hills
Treas. ~~Notary Public~~ in and for the State of

(FORM 483-TREAS.-20M 5-55) residing at

Present All Papers in Connection with Transaction

Stevens County Auditor's Miscellaneous Receipt

Colville, Wash., Dec 19 1956

Received from William D Weaver

The Sum of Two and 10/100 Dollars

For Revenue on Mining Deed

Hazel Cmery County Auditor

$ 2.10 By Lucile Helt Deputy

Stevens County Auditor's Miscellaneous Receipt

Colville, Wash., Dec. 19 1956

Received from William D. Weaver

The Sum of Four and 55/100 Dollars

For Filing Mining Deed

Hazel Cmery County Auditor

$ 4.55 By Lucile Helt Deputy

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RECEIVE 03 28 1957
DATE | CODE

OPERATING AGREEMENT

THIS AGREEMENT made and entered into this 27th day of June, 1957, by and between UNIVERSAL MINING CORPORATION, a Washington corporation, hereinafter referred to as FIRST PARTY, and GEO-RESOURCE CORPORATION, a Washington corporation, hereinafter referred to as SECOND PARTY,

WITNESSETH:

WHEREAS, the First Party is the sole and exclusive owner of the mineral rights on the following described parcels of land, situate in the county of Stevens and State of Washington, to wit:

> Sections Three (3), and Fifteen (15), both in Township Twenty-nine (29) North, Range Thirty-eight (38) East, W. M., in Stevens County, Washington, containing 1280 acres more or less,

Together with all other necessary rights and privileges requisite to conducting mining explorations, developments, and operations.

WHEREAS, the First Party has knowledge of and confidence in the Second Party's experience in the exploration and development of mining properties, is desirous of having these mining properties explored by the Second Party and of having these properties developed and mined by the Second Party in the event commercial ore is discovered therein, and the Second Party is desirous of undertaking the exploration of said properties and of developing the same should the exploratory work justify development of the properties for the production of commercial ores.

NOW THEREFORE, in consideration of the payment by the Second Party to the First Party of Nine thousand, five hund-

red forty-two dollars and twenty-four cents ($9,542.24), in hand paid, the receipt of which is hereby acknowledged by the First Party, and the mutual agreements of the parties hereto,

IT IS AGREED AS FOLLOWS:

(1) First Party agrees that immediately upon the execution of this agreement the Second Party shall have the right to enter upon, into and take possession of these mining properties for the purpose of exploring, developing, and operating them under the terms of this agreement.

(2) Second Party agrees to comply fully with all of the terms and particular surface rights reservations of that Warranty Mining Deed between Universal Mining Corporation, a Washington corporation, and Taylor Land & Livestock Company, a corporation organized under the laws of the State of Washington, and Gladys McGregor, individually and as Executrix of the Estate of Alexander Taylor McGregor, deceased, and as Trustee under the will of Alexander Taylor McGregor, deceased, and Richard S. Munter, as Trustee under the Will of Alexander Taylor McGregor, deceased; dated the 29th day of June, 1956, which by reference is made a part hereof.

(3) Second Party agrees to drill a total of two thousand (2000) feet on each section during the first year of this agreement and that following this initial exploration program, shall continuously engage in exploration, or development, or operational work on the properties, during the operating season.

(4-A) Second Party agrees that in the event of production of commercial ore from these properties, Second Party agrees to pay First Party a royalty of 12½% of net smelter returns or of all monies received from the sale of all minerals produced from the properties.

(4-B) The term "net profits" as used herein shall be determined by deducting from the gross monies received from the sale of ores, the costs of transportation and treatment.

(5) Each party to this agreement shall be entitled to their depletion credits and the depletion allowance shall be apportioned between the parties in the same ratio as profits are shared.

(6) Second Party agrees to pay to First Party a minimum annual payment of two thousand dollars ($2000.00) per year commencing with the first payment on January 1, 1958 and continuing with payments of two thousand dollars ($2000.00) on each January 1 thereafter during the life of this agreement. When the First Party's earned profits exceed the $2000.00 minimum annual payment during any year then additional payments of earned profits will be made each quarter by Second Party, commencing within fifteen (15) days after the end of the quarter during which the minimum annual payment is exceeded.

(7) Second Party agrees that so long as this agreement remains in effect all operations will be in a good and workmanlike manner; to permit First Party, or its representatives, free access at all reasonable times to the properties listed herein, provided such access does not unduly interfere with the normal conduct of mining and auxiliary operations; promptly to pay the sums accruing to First Party under the various provisions of this agreement and to submit statements of earned profits in duplicate showing how such profits were calculated and also an itemization of all costs; to allow First Party and its representatives to inspect at reasonable office hours and without undue interference with the work of the Second Party's accounting force those portions of Second Party's books of account which show the details upon which profits have been calculated and all other data pertaining to matters involved herein; promptly to pay in full all persons performing work or services or supplying mater-

ials for Second Party's operation; never to permit any liens, charge or encumbrance from Second Party's operations to attach to any property belonging to First Party; to permit First Party to post and keep posted such notices of non-responsibility of First Party as may be by it deemed necessary; to defend any legal lien or claim arising from Second Party's operations under this agreement against said First Party and to indemnify First Party for all losses and expenses of whatever nature arising from the existence or assertion of any such claim; to comply with all the laws of the State of Washington and the United States now or hereafter affecting mining and auxiliary operations, and with all labor laws, compensation statutes or other similar rules or requirements now or hereafter legally liable; promptly to pay all taxes of every kind assessed against Second Party's operation or the products therefrom, and, in case of the termination of this lease for any reason whatsoever, peaceably to yield possession of the premises and to give to First Party a good and sufficient Release from all terms of this agreement.

(8) Second Party must furnish the chiefs of its exploration, development, and/or mining crews with instructions that when preparing reports and maps, sketches, profiles, or sections for transmittal to Second Party, one exact or carbon copy must at all times at the same time be prepared and in a reasonable time or upon request be delivered to First Party.

(9) If, at any time, Second Party shall break any of the conditions and covenants hereof, First Party may, if it so elects, declare this agreement forfeited, and may retain as full compensation for the use of the premises all sums theretofore paid to First Party; provided at all times, however, that before any such forfeiture shall be declared, First Party shall first give Second Party notice in writing specifically directing attention to the breach or breaches complained of; and Second Party shall have the period of thirty (30) days after date of receipt

of such notice within which to remedy such breach, if any there shall be.

(10) At anytime Second Party may terminate this agreement by giving a thirty (30) days written notice of Second Party's intention to do so.

(11) It is further understood and agreed that Second Party shall be entitled to hold possession of said property for a term of twenty (20) years from the date hereof and for a further term of twenty (20) years at the option of the Second Party, subject however, to earlier termination as in this agreement provided.

(12) It is further agreed that upon notification of termination by Second Party, Second Party shall have thirty (30) days in which to remove from said properties all buildings, installations, supplies, tools, implements, and machinery, placed thereon by the Second Party.

(13) In the event of litigation arising out of this agreement, the prevailing party will be entitled to recover, in addition to all other costs of action, a reasonable sum, to be fixed by the Court, by way of attorney's fees.

(14) All notices provided herein shall be written and may be given by mailing same under registered cover and properly addressed at the following addresses: To FIRST PARTY by sending to Universal Mining Corporation, 414 Fernwell Building, Spokane 4, Washington. To SECOND PARTY by sending to Geo-Resource Corporation, Suite 525-528 Hutton Building, Spokane 4, Washington.

IN WITNESS WHEREOF the parties hereto have set their hands and seals in triplicate, the day and year first above written, and each signed and acknowledged copy hereof shall have the force of an original.

UNIVERSAL MINING CORPORATION

By _____
President

FIRST PARTY

ATTEST:

_____
Secretary

GEO-RESOURCE CORPORATION

By _____
President

SECOND PARTY

ATTEST:

_____
Secretary

STATE OF WASHINGTON)
ss.
COUNTY OF SPOKANE)

On this 1st day of July, 1957, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared CLINE E. TEDROW and GLADYS McGREGOR, to me known to be the President and Secretary, respectively, of UNIVERSAL MINING CORPORATION, a Corporation, and acknowledged the above and foregoing instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute the said instrument, as First Party, and that the seal affixed is the corporate seal of said corporation.

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.

Mable L. Davis
Notary Public in and for the State of Washington, residing in Spokane

STATE OF WASHINGTON)
ss.
COUNTY OF SPOKANE)

On this 1st day of July, 1957, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared WILLIAM D. WEAVER and RICHARD WEAVER, to me known to be the President and Secretary, respectively, of GEO-RESOURCE CORPORATION, a Corporation, and acknowledged the above and foregoing instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute the said instrument, as Second Party, and that the seal affixed is the corporate seal of said corporation.

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.

Mable L. Davis
Notary Public in and for the State of Washington, Residing in Spokane

CONTRACT AMENDMENT

The words "net profits" in Line 1 of Paragraph 4-B, Page 3 of that certain agreement by and between Universal Mining Corporation, 414 Fernwell Building, Spokane, Washington, a Washington corporation, and Geo-Resource Corporation, Suite 525-28 Hutton Building, Spokane 4, Washington, a Washington corporation, is hereby amended to read "net smelter returns".

UNIVERSAL MINING CORPORATION

By _____
President

ATTEST:

_____
Secretary

GEO-RESOURCE CORPORATION

By _____
President

ATTEST:

_____
Secretary

STATE OF WASHINGTON)
ss.
COUNTY OF SPOKANE)

On this 24th day of Sept., 1957, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared CLINE E. TEDROW and GLADYS McGREGOR, to me known to be the President and Secretary, respectively, of UNIVERSAL MINING CORPORATION, a corporation, and acknowledged the above and foregoing Contract Amendment to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute the said instrument, and that the seal affixed is the corporate seal of said corporation.

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.

Mable L. Davis
Notary Public in and for the State of Washington, residing in Spokane.

STATE OF WASHINGTON)
ss.
COUNTY OF SPOKANE)

On this 24th day of Sept., 1957, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared WILLIAM D. WEAVER and RICHARD WEAVER, to me known to be the President and Secretary, respectively, of GEO-RESOURCE CORPORATION, a corporation, and acknowledged the above and foregoing Contract Amendment to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute the said instrument, and that the seal affixed is the corporate seal of said corporation.

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.

Mable L. Davis
Notary Public in and for the State of Washington, residing in Spokane.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/14	Murphy	700
		~~100~~
10/14	Johnson	110
"	Rittendorf	100
10/15	C	220
		700

OCT 14 1957

Mr. R. D. Lynn
The Anaconda Company
P. O. Box 638
Grants, New Mexico

Dear Mr. Lynn:

This is to acknowledge your letter of October 9, 1957, referring to a Defense Minerals Exploration Administration contract with Geo-Resource Corporation for the development of an exploration device or technique for locating deeply-buried uranium deposits.

Government aid in an exploration contract was granted to Geo-Resource Corporation. However, the project consisted of physical exploration by means of trenching and drilling.

Previous to applying for aid the Geo-Resource Corporation completed a considerable amount of initial prospecting in the project area. This work included trenching and sampling. Its method of prospecting followed fairly closely the geochemical techniques described in USGS Professional Paper 300, pages 659-665, (1955), by T. S. Lovering, H. W. Lakin, F. N. Ward, and F. C. Canney. This paper can be obtained from the United States Government Printing Office, Washington, D. C.

The procedure used for determination of trace amounts of uranium was basically the paper chromatography method described by Hunt, North, and Wells, (Analyst, Vol. 80, pages 172-194) with certain modifications worked out by the United States Geological Survey.

If you wish further information on this method of prospecting for uranium, it is suggested that you contact the U. S. Geological Survey, Denver Federal Center, Denver, Colorado, for recent developments in geochemical prospecting technique.

Sincerely yours,

9

Ernest Wm. Ellis, Director
Division of Rare and
Miscellaneous Metals

FMMurphy/izm 10-14-57
cc: Mr. Murphy
Docket DMEA-4671
Admr.'s Reading File
THKiilsgaard, 5224
DMEA FT Reg. I (2) w/2cc of incoming letter

8623

4671

THE ANACONDA COMPANY

New Mexico Operations

P. O. Box 638, Grants, New Mexico

ANACONDA
from mine to consumer

A. J. FITCH
MANAGER

OFFICIAL FILE COPY DMEA RECEIVED OCT 11 1957		
DATE	INITIALS	CODE
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"	~~FK~~	700
	FMM	

4671

October 9, 1957

U. S. Defense Minerals
Exploration Administration
Washington 25, D. C.

Gentlemen:

An article appeared in the July 31, 1957 issue of the Journal of Congress which has aroused our interest. It concerns a Defense Minerals loan to the Geo-Resource Corporation for the development of an exploration device or technique for locating deeply-buried uranium deposits. If it is at all consistent with your policy on such matters, we would appreciate very much learning more about this technique and the principles that it employs or utilizes.

May we hear from you in the near future.

Sincerely,

R. D. Lynn

R. D. Lynn

RDL:fd

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED
OCT 14 1957
D. M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September, 1957 Docket No. DMEA 4671 Contract No. Idt-E 1114
Operator's Name Geo-Resource Corporation Minerals Uranium
Address Suite 525-8 Hutton Building, Spokane 4, Wn.
Contract Amount, $ 45,960.00 Government Participation: 75 % Amount, $ 34,470.00

ITEMS OF COSTS STAGE I	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	2436.00	924.00	3360.00	2436.00	924.00	3360.00
Bulldozing	1470.00	1575.00	3045.00	1470.00	1575.00	3045.00
Crosscutting						
~~Drilling~~ Standpipe	540.00		540.00	540.00		540.00
Cement & Casing	57.00	243.00	300.00	57.00	243.00	300.00
(2) Labor and Supervision:						
Labor						
Supervision	600.00	600.00	1200.00	600.00	600.00	1200.00
Technical Services	162.50	206.25	368.75	162.50	206.25	368.75
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Gasoline	12.60	95.40	108.00	12.60	95.40	108.00
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation	33.33	33.33	66.66	33.33	33.33	66.66
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes	89.40	89.40	178.80	89.40	89.40	178.80
Liability Insurance						
Core Boxes	16.00	8.00	24.00	16.00	8.00	24.00
Trans. Dozer	100.00		100.00	100.00		100.00
(8) Contingencies (specify):						
TOTALS	5516.83	3774.38	9291.21	5516.83	3774.38	9291.21

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 2 Oct., 1957 Payee Geo-Resource Corporation

Per George B. Weaver Title General Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 4137.62

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 10/9/57 Vou. No. 2052

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 6 1114 in accordance with the terms of the contract.

Signature /s/ Galen L. Waddell Title Mining Engr. Date 10/3/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date 10/8/57

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED OCT 14 1957

Month of Sept. 1957 Docket No. DMEA 4671 Contract No. Icm-E 1114

Operator's Name Geo-Resource Corporation Minerals Uranium

Address 525-8 Hutton Bldg., Spokane 4, Wash.

OPERATION STAGE I	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
~~Mxxx~~ Trans. Dozer	Mi.	100.00	100	100.00	100	$1.00	100	$1.00/Mi.
~~xxxx~~ Core Boxes	Ea.	16.00	16	24.00	24	1.00	300	1.00/Ea.
Drilling: Core	Ft.	2436.00	406	3360.00	560	6.00	3000	6.00/Ft.
Cmtg. Core Casing	Ft.	57.00	19	300.00	100	3.00	100	3.00/Ft.
Drvg. Aug. Drpipe	Ft.	540.00	72	540.00	72	7.50	100	7.50/Ft.
Stripping								
Trenching	Hr.	551.25	31½	1400.00	80	17.50	80	17.50/Hr.
Test Pits								
Roads and Trails	Hr.	437.50	25	1050.00	60	17.50	60	17.50/Hr.
Drill Site Prep.	Hr.	481.25	27½	595.00	34	17.50	40	17.50/Hr.
Total Distributed Costs		4619.00		7369.00				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		4619.00		7369.00				

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

Remarks:

Date 2 Oct., 1957 Operator Geo-Resource Corporation

Per George B. Weaver Title General Manager

→ NOTE.—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.

(Instructions on reverse)

(For Government use only)

/s/ Galen L. Waddell, Mining Engr.

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

GEO-RESOURCE CORPORATION
TEL. MA. 4-9654
SUITE 525-528 HUTTON BUILDING
SPOKANE 4, WASHINGTON
CABLE: GORESCO

1 October, 1957

RE: Blue Mountain Project
DMEA Docket No. 4671
Contract No. Idm-E 1114

Cost Segregation Sheet - Supplement to MF-104

STAGE I

Drilling:

140 Ft. BX size hole @ $6.00	$840.00
266 Ft. AX size hole @ $6.00	1,596.00
72 Ft. 3" Standpipe @ $7.50	540.00
19 Ft. Cementing & Casing @ $3.00	57.00

Bulldozing:

25 Hrs. Access Road @ $17.50	$437.50
27½ Hrs. Drill Site Prep. @ $17.50	481.25
31½ Hrs. Trenching @ $17.50	551.25
Transporting Dozer - 100 Mi. @ $1.00/Mi. (Round Trip, Spokane to Blue Mountain Property - 120 Miles.)	100.00

Supervision:

George B. Weaver, Project Superintendent Salary for September, 1957	$600.00

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RECEIVED OCT 14 1957

DATE	INITIALS	CODE

GEO-RESOURCE CORPORATION

George B. Weaver

George B. Weaver,
General Manager

GEO-RESOURCE CORPORATION
TEL. MA. 4-9654
SUITE 525-528 HUTTON BUILDING
SPOKANE 4, WASHINGTON
CABLE: GEORESCO

1 October, 1957

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RE: Blue Mountain Project
DMEA Docket No. 4671
Contract No. Idm-E 1114

NARRATIVE REPORT

Month of September, 1957

TRENCHING

The bulldozer trenching program was completed in the month of September. A total of seven trenches were put in, exposing the contact at intervals averaging 400 feet, for an aggregate length along the strike of 2600 feet. In all the trenches there was a slight increase of radioactivity near the contact, and in Trench No. 7 and the place where the contact is exposed near the junction of the water road and the upper access road, the radioactivity approaches three times the normal background count. No identifiable uranium minerals have been found in these areas.

DIAMOND DRILLING

Two holes were completed in the month of September and another hole initiated, for a total of 413 feet of hole drilled. Drilling has been slowed considerably by badly broken ground, which has required considerable cementing of fractured areas, and driving casing in some holes. Effective the first of October, the drill contractor is putting on another shift of drillers, which should result in substantially increased drill footage.

Permission has been obtained from the DMEA field team to place the three furthest-west holes roughly parallel to the contact, rather than normal to it. It was felt that more information could be obtained on more of the contact by placing the holes in this manner. Hole No. 4 will be the farthest west hole of this series.

Narrative Report - September, 1957

MISCELLANEOUS

A zone of increased radioactivity was recorded by the Atomic Energy Commission probing of Hole No. 3. The cores were examined with ultra-violet light, but showed no fluorescent secondary minerals. An examination of the cores from Hole No. 4 did, however, show occasional flecks of what is probably autunite, and in one place a showing of scheelite.

Respectfully submitted,

George B. Weaver

George B. Weaver,
General Manager

GEO-RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No. 4671)

State: Washington

Hole No.: 2

Collar Elev.: 3489.16

County: Stevens

Angle: 90°

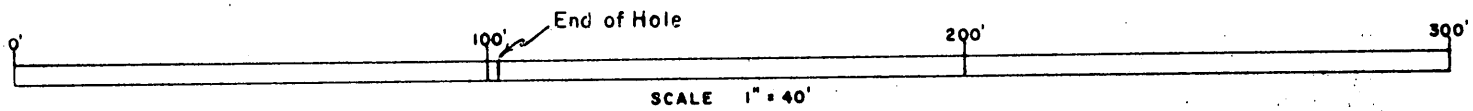
Hole Started: 8-30-57

Coord.: N 13,287.68 E 12,312.51

Bearing:

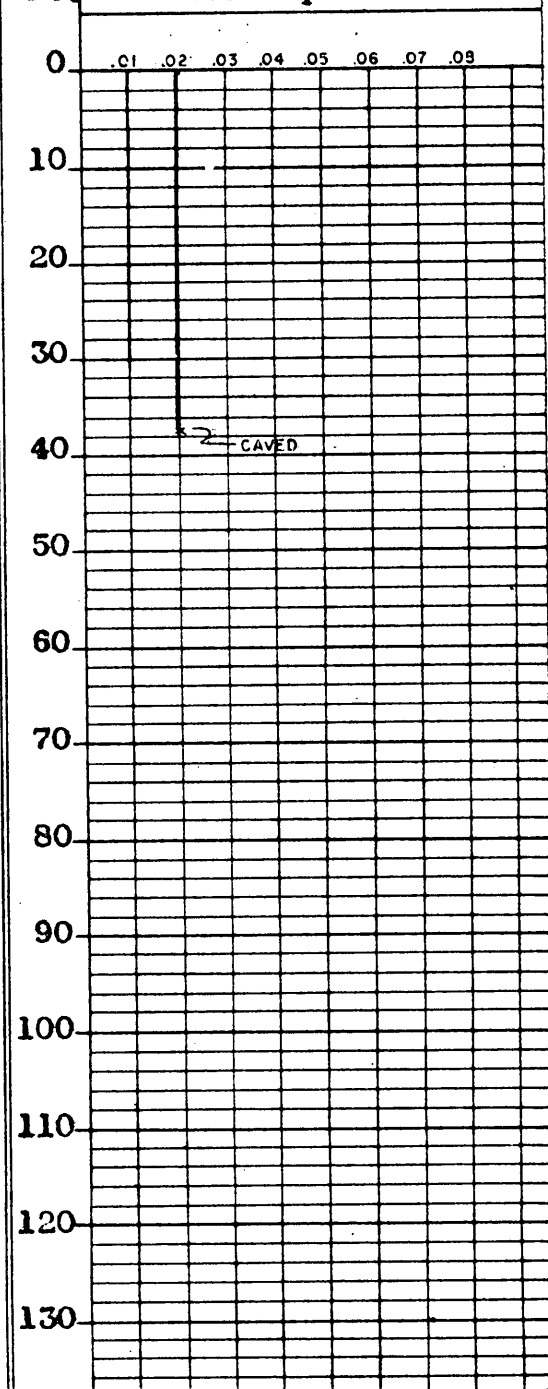
Hole Finished: 9-6-57

.5% and above
.2% - .5%
less than .2%



Footage	% Core Recovery	Geology	Assay No.	Assay %
15	0	Hole cased to bottom. (Drillers) Very badly decomposed granite. Sludge made up of sand-size particles of Qtz, Feldspar, biotite and muscovite.		
18	50	Weathered medium grain porphyritic granite.		
20	10	Do		
23	20	Do w/iron oxides on fracture planes.		
35	0	Sludge same as above.		
38	50	Pegmatitic granite - mostly qtz w/abundant muscovite and some biotite		
42	0	Sludge shows abundant muscovite.		
53	75	Porphyritic granite - iron oxides on fracture.		
70	0			
73	50	Dark grey very coarse grained granite. Qtz smoky gray color - white feldspar.		
80	60	Medium grain granite w/abundant biotite.		
81	60	Granite minerals w/black, vitreous mineral, (unident.) (manganese oxide?)		
88	90	Fairly competent porphyritic granite.		
92	90	Do		
93	60	Weathered coarse grained granite w/smoky quartz and white feldspar.		
98	90	Do, but with pinkish feldspars.		
102	70	Do - Hole bottomed at 102 ft.		

Radiometric Log



GEO-RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No. 4671)

State: Washington

Hole No.: 3

Collar Elev.: 3353.83

County: Stevens

Angle: 90°

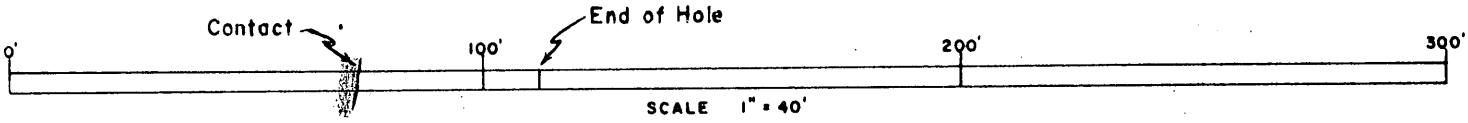
Hole Started: 9-9-57

Coord.: N 13,905.42 E 12,894.81

Bearing:

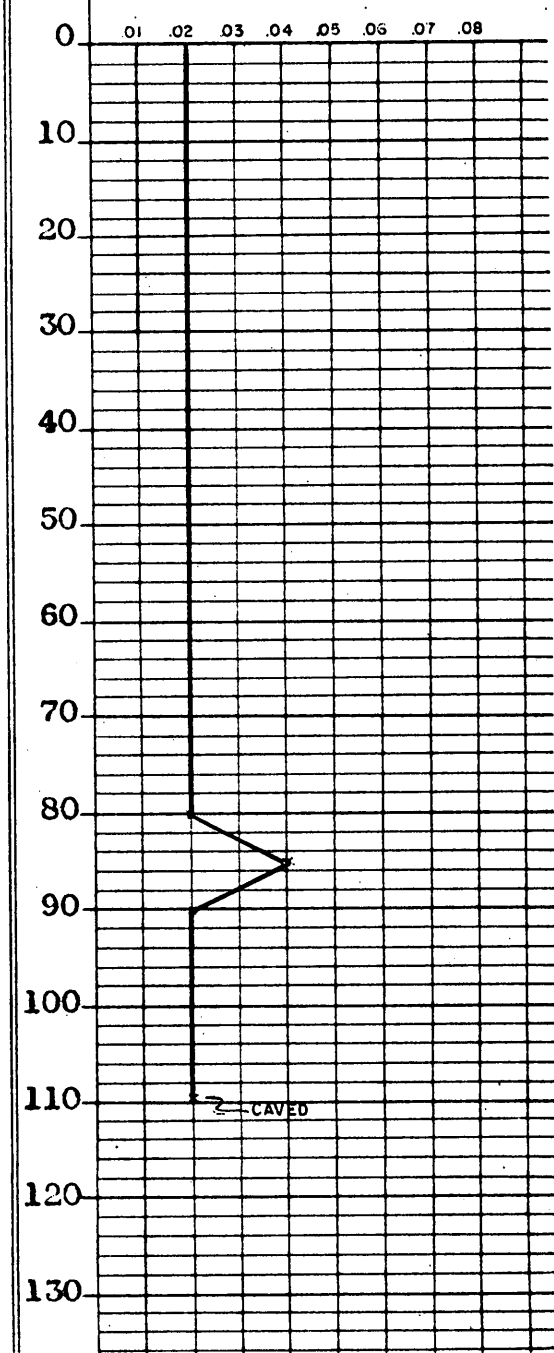
Hole Finished: 9-14-57

.5% and above
.2% - .5%
less than .2%



Footage	% Core Recovery	Geology	Assay No.	Assay %
11	0	Soil and overburden.		
14	60	Badly shattered and ground up quartzitic schist.		
17	60	Do		
23	50	Do		
29	0	Sludge of sand and clay particles.		
32	60	Badly shattered and ground up green schist w/occasional porphyroblasts. At 32 ft. small granitic dike or sill.		
37	60	Angular to subangular fragments of weathered schist, quartzite, and green dike rock with abundant ferruginous clay.		
40	40	Do		
44	40	Do		
46	25	Do		
51	40	Deeply weathered green schist.		
54	30	Do		
58	50	Do - schistosity parallel to axis of hole.		
60	50	Do		
61.5	90	Do		
65	30	Do		
71	60	Do		
73	25	Do		
78	20	Crossed contact at 73 ft. Coarse grained granite, badly weathered.		
85	40	Went to AX at 78 ft.(Drill.)		
111	85	Do - Hole bottomed at 111 ft.		

Radiometric Log



GEO-RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No. 4671)

State: Washington

Hole No.: 4 - Page 1

Collar Elev.:

County: Stevens

Angle: 90°

Hole Started: 9-16-57

Coord.: N 13,382.37 E 11,140.88

Bearing:

Hole Finished:

.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Footage	% Core Recovery	Geology	Assay No.	Assay %
16	0	Soil and overburden.		
23	5	Badly weathered blue-green dike rock.		
26	40	Do		
29	60	Fractured dike rock. (Went to AX at 29 ft.) Drillers.		
32	50	Dike rock - some intruded quartz with fresh pyrite.		
42	50	Badly shattered dike rock.		
50	50	Do		
55	40	Fractured and recemented dike rock. (Caving badly, cemented hole.)Drillers.		
58	60	Fractured schist (?).		
61	0	Sludge of dark sand particles some qtz and abundant unidentified dark mineral.		
68	2	Sludge of light colored sand mostly qtz and feldspars (?).		
71	40	Tan, weathered schist grading into grey, fractured schist. Much intruded qtz. Some slickensiding on fracture planes.		
76	90	Grey schist w/much qtz intruded on bedding and fracture. Schistosity dips 50° to axis of hole.		
80.5	99	Do		
85.5	99	Do - some fresh pyrite in qtz injections. Dip-50°-60°		
89.5	95	Do		
94	95	Do		
98.5	95	Do		
100	95	From 98-99, Qtz vein with pyrite filling fractures - rest of run schist - no contact visible. Little Scheelite under U-V light.		

Radiometric Log

Ft.	Microamperes
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	
130	

GEO-RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No. 4671)

State: Washington

Hole No.: 4 - Page 2

Collar Elev.:

County: Stevens

Angle: 90°

Hole Started: 9-16-57

Coord.: N 13,382.37 E 11,140.88

Bearing:

Hole Finished:

.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Footage	% Core Recovery	Geology	Assay No.	Assay %
105	95	At 100 ft. qtz intrusion cuts core at angle of 15° to axis of hole. Show of Scheelite, rest of run schist.		
110	100	Grey schist w/intruded qtz. Schistosity dips 40°-50° to axis of hole. Occasional fresh sulfide in intrusions.		
114	100	Do		
119	100	Do		
126	95	Do - some fractured zones.		
129	95	Do		
134	100	Do		
140	95	Do - fracture zone - 134-135.		
145	100	Do		
151	100	Do - fracture zones at 147 and 150-151.		
155	100	Do		
158.5	100	Do - dip occasionally steepens to 60°.		
161	95	Do		
166	100	Do		
170.5	100	Do		
175.5	100	Do		
176.5	60	Do - fractured zone.		

Radiometric Log

Ft.	Microamperes
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	
130	

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DATE	INITIALS	CODE
9-16	C	220
[illegible]	[illegible]	800
9/17	[illegible]	700

1201 N. Division St.
Spokane 2, Washington

September 11, 1957

Geo-Resource Corporation
Suite 525-528 Hutton Building
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Contract No. Idm-E1114
Monthly operating report for
August

Gentlemen:

This is to inform you the subject voucher could not be paid in the full amount claimed.

The deletion is explained in the attached copy of a memorandum to the Field Team from the Certifying Officer, Region I.

By Field Team, Region I

Donald R. MacLaren, Alternate Act. Exec. Officer
U. S. Geological Survey

Thomas E. Howard, Acting Member
U. S. Bureau of Mines

cc: DMEA (2)
USGS (2)

DMEA Field Team, Region I

September 11, 1957

DMEA Certifying Officer, Region I

Monthly operating report for August 1957
Contract No. Idm-E1114

The subject operating report has been processed and forwarded to the Disbursing Officer for payment.

An amount of $21.30 has been deleted for drilling. The Operator claimed 71 ft. BX size @ $6.30/ft. and 83 ft. AX size @ $6.00/ft., for a total of $945.30. We have paid the Operator for 154 ft. @ $6.00/ft., for a total of $924.00 or a difference of $21.30. The contract specifies "core drilling @ $6.00/ft." There is no provision for an increased cost for BX size.

Dorothy F. Long

cc: DMEA (2)
USGS (2)

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RECEIVED SEP 16 1957

DATE	INITIALS	CODE

DMEA Field Team, Region I

September 11, 1957

DMEA Certifying Officer, Region I

Monthly operating report for August 1957
Contract No. Idm-Ell14

The subject operating report has been processed and forwarded to the Disbursing Officer for payment.

An amount of $21.30 has been deleted for drilling. The Operator claimed 71 ft. BX size @ $6.30/ft. and 83 ft. AX size @ $6.00/ft., for a total of $945.30. We have paid the Operator for 154 ft. @ $6.00/ft., for a total of $924.00 or a difference of $21.30. The contract specifies "core drilling @ $6.00/ft." There is no provision for an increased cost for BX size.

Dorothy F. Lon.

cc: DMEA (2)
USGS (2)
Contract Admin. & Audit Div. (2)
GW
AD

EXTRA COPY
D.M.E.A.
RECEIVED SEP 16 1957
DATE | REMARKS | CODE
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11 ~~[illegible]~~ 700

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August, 1957 Docket No. DMEA 4671 Contract No. Idn-E 1114
Operator's Name Geo-Resource Corporation Minerals Uranium
Address Suite 525-528 Hutton Bldg., Spokane, Wn.
Contract Amount, $ 45,900.00 Government Participation: 75 % Amount, $ 34,470.00

ITEMS OF COSTS Stage I	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Contractors:						
Drilling	1188.30			924.00	—	924.00
Bulldozing	1575.00			1575.00	—	1575.00
Crosscutting						
Drifting						
Cementing & Casing				243.00	—	243.00
(2) Labor and Supervision:						
Labor						
Supervision	600.00			600.00	—	600.00
Technical Services	206.25			206.25	—	206.25
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
~~Core Boxes~~	~~8.00~~					
Gasoline	95.40			95.40	—	95.40
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation	33.33			33.33	—	33.33
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes	89.40			89.40	—	89.40
Liability Insurance						
~~Gasoline~~	~~95.40~~					
Core Boxes	8.00			8.00	—	8.00
(8) Contingencies (specify):						
	6					
TOTALS	3794.68			3774.38	—	3774.38

I certify that the above bill is correct and just and that payment therefor has not been received.
Date Sept. 3, 1957 *Payee Geo-Resource Corporation

Per George B. Wesner Title General Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2830.79

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 9/11/57 Vou. No. 2039
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 1114 in accordance with the terms of the contract.

Signature /s/ Stephen W. Zoldak Title Mining Engr. Date Sept. 14, 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec Officer Date Sept. 4, 1957

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 872893

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 1956 Docket No. DMEA 4671 Contract No. Idn-E 1114

Operator's Name Geo-Resource Corporation Minerals Uranium

Address Suite 525-528 Hutton Bldg., Spokane 4, Wn.

OPERATION Stage I	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Ft.	1188.30	154		154		3000	6.00/ft.
Churn or Coring	Ft.				81		100	3.00/ft.
Auger								
Stripping								
Trenching	Hr.	840.75	48½		48½		80	12.50/hr.
Test Pits								
Roads and Trails	Hr.	612.50	35		35		60	12.50/hr.
Drill Sites	Hr.	113.75	6½		6½		40	12.50/hr.
TOTAL DISTRIBUTED COSTS		3763.30						TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

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

Date 3 Sept., 1957 Operator Geo-Resource Corp.

Per George B. Weaver Title General Manager

NOTE.—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.

REMARKS:

(Instructions on reverse)

(For Government use only)

/s/ Stephen W. Zoldok, 9/4/57

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

GEO-RESOURCE CORPORATION
TEL. MA. 4-9654 SUITE 525-528 HUTTON BUILDING CABLE: GEORESCO
SPOKANE 4, WASHINGTON

Blue Mountain Project
DMEA Docket No. 4071
Contract No. Ida-S 1114

NARRATIVE REPORT

Month of August, 1957

ROAD BUILDING

Work commenced on the Blue Mountain Project on 31 July, 1957. The first task was the construction of approximately 7000 feet of access road from the west 1/4 corner of Section 15, T. 29 N., R. 38 E., into the project area. This road was completed by 9 August. Reconnaissance during the preceding season had discovered the presence of several small high-level springs (approximate coordinates N. 12,000 E. 10,800) which bore promise of furnishing, after improvement, sufficient water to carry out the drilling program. To this end, about 1000 feet of trail was constructed into the spring area, the springs dozed out, and a pond constructed. However, due to the unseasonably dry summer the springs failed to develop sufficient water in 24 hours to support one shift of drilling. It is anticipated that if and when some rain brings up the water table these springs can be utilized for drilling water.

For the balance of the dry season it became obvious that water must be hauled. The nearest water sufficient for drilling was found in Camas Creek near the east edge of Section 11, T. 29 N., R. 38 E. In order to reduce the haul distance from a total of seven miles via the high access road, a short connecting trail was put in to a logging road near the SE Cor. Sec. 10, T. 29 N., R. 38 E. (Not yet mapped - will be shown next month.) This reduced the water haul to approximately three miles.

TRENCHING

Trenching was begun on 9 August. It had been hoped that a series of long straight trenches could be put in, exposing the contact at regular intervals. However a combination of steep slope and hard rock on the uphill side of the contact made it necessary to bring the trenches around the hillside at 30 to

to 35 degrees from normal to the slope. As of the end of the month, four trenches had been initiated. The contact was exposed in three of these, and the fourth is not completed yet. The nature of the exposures makes it difficult to determine the dip, but it appears to vary from vertical to 60 degrees toward the schist side of the contact. A rough section on a line through drill hole No. 1, perpendicular to the contact, showed the dip to be 66 degrees between the surface and where the contact cut the core at 138 feet.

DRILLING

Hole No. 1 was initiated on 21 August. The hole was started with BX core, drilling with a fairly thick mud fluid of bentonite and water. In competent rock the core recovery was excellent, and in fractured areas quite satisfactory. (See drill log attached.) However, it was discovered that in badly fractured areas the hole caved despite the column of mud fluid, and that in competent ground the core recovery was as good with water as it was with mud. It was also found that the bentonite mixed with cuttings to make a very abrasive mixture which tended to force through the perforations in the inner tube of the core barrel into the space between the two tubes, and wear on the inner tube as the rods rotate. A hole was actually worn through one BX inner tube. As a consequence of this experience the bentonite mud fluid has been thinned considerably. There has been no appreciable difference in core recovery. Hole No. 1 was bottomed at 154 feet and preparations begun for Hole No. 2 on the granite side of the contact at about 100 feet distance.

MISCELLANEOUS

The Spokane office of the Atomic Energy Commission has agreed to probe the drill holes with their portable gamma ray logging equipment. The probing equipment was put down Hole No. 1 on August 30. The recording equipment was not used, so spot readings were taken every five feet. The hole was probed to 120 feet where the probe encountered a caved spot. Subsequent jiggling of the probe resulted in caved material falling on top of it until it lodged firmly in the hole. Attempts to recover the probe finally resulted in the cable parting, and the probe was abandoned. AEC personnel have explained that their probe is calibrated in a barrel of material averaging 0.15% cU_3O_8, and that for all practical purposes, microampere readings may be taken to correspond directly to per cent uranium.

Primary mapping control was established by transit traverse lines, carrying elevation trigonometrically. All

traverses were closed and closure error has not exceeded 1/6000. Topography and workings are being mapped by transit-stadia methods. The survey was oriented by observation upon Polaris for meridian. A system of plane rectangular coordinates has been instituted, using an arbitrary origin. Level datum was taken from a multiplex spot elevation on the Ramsey Quadrangle, and should be considered only approximate mean sea level.

A geochemical soil profile was taken at 50 foot stations along the access road. All samples were negative.

Respectfully submitted,

GEO-RESOURCES CORPORATION

George B. Weaver

George B. Weaver,
General Manager

GEO-RESOURCE CORPORATION
TEL. MA. 4-9654
SUITE 525-528 HUTTON BUILDING
SPOKANE 4, WASHINGTON
CABLE: GEORESCO

3 September, 1957

RE: BLUE MOUNTAIN PROJECT
DMEA DOCKET NO. 4671
CONTRACT NO. Idm-8 1114

Cost Segregation Sheet Supplement to MF-104

STAGE I.

Drilling

71 feet BX size hole @ $6.50	447.50
71 feet to 134 feet AX size hole @ $6.00	498.00
Hole cemented from 46 to 56 feet @ $3.00	30.00
AX Casing installed to depth of 71 feet @ $3.00	213.00

Bulldozing

Trenching - 49½ hours @ $17.50 hr.	868.75
Drill Sites - 6½ hours @ $17.50 hr.	113.75
Roads & Trails - 35 hours @ $17.50	612.50

Supervision

George B. Weaver, Project Superintendent, August, 1957	600.00

George B. Weaver
George B. Weaver,
General Manager

GEO-RESOURCE CORPORATION

DRILL LOG

Project: Blue Mountain (DMEA Docket No.4671)

State: Washington

Hole No.: 1

Collar Elev.: 3518.39

County: Stevens

Angle: 90°

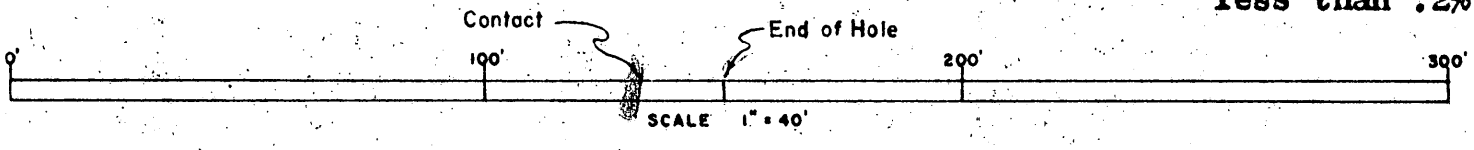
Hole Started: 21 Aug., 1957

Coord.: N 13,343.21 E 12,256.41

Bearing:

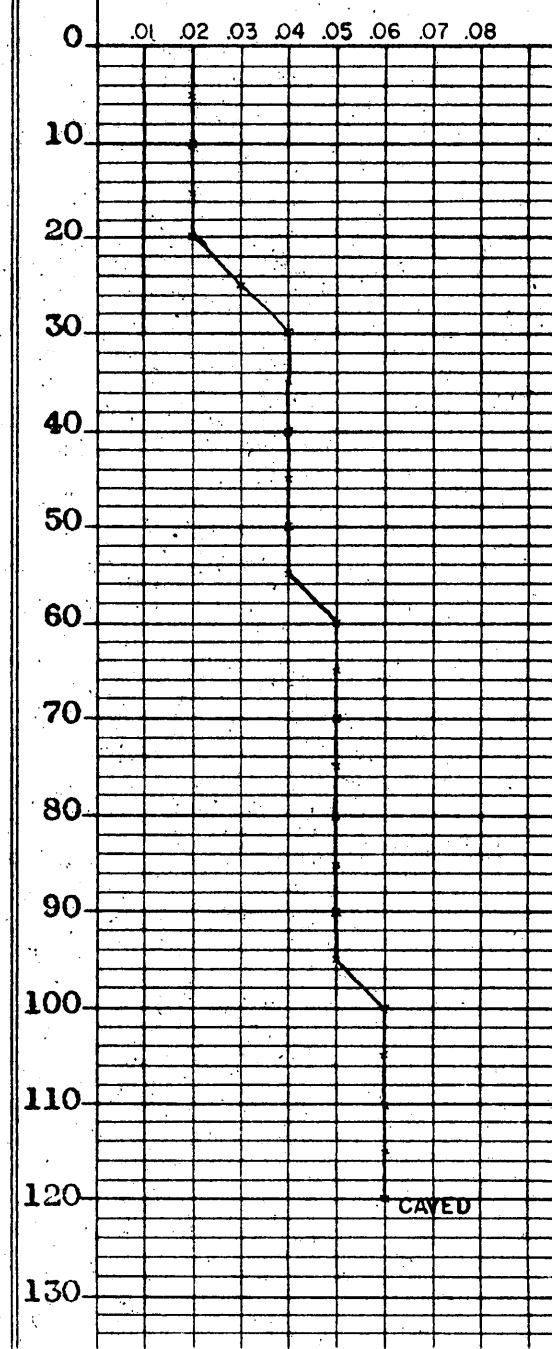
Hole Finished: 29 Aug., 1957

.5% and above
.2% - .5%
less than .2%



Footage	% Core Recovery	Geology	Assay No.	Assay %
1	50	Soil & slope wash		
4.5	75			
6	60			
9	80	Fractured schist		
12.5	90			
16	95	Alternating fractured and competent schist		
21	100	Gray schist-schistosity dips 40° to axis of hole		
22.25	90			
24		Badly fractured zone-dip steepens to 30° (fold?)		
25.5	90	Fractured schist- ferruginous clay on partings		
28	100	Fractured schist with some recementations		
31	100	Competent schist-schistosity dips 40° to axis of hole		
36	100	Do		
39.8	100	Do		
42	100	Do		
43.75	80	Schist with alternating bands of iron oxides-dip 40° to axis of hole		
44.75	80			
46	80	Very badly fractured schist		
49	75	Do Lost water at 48ft. cemented hole & redrilled (Drillers)		
51	60	Badly shattered schist		
52	80	Do		
54.5	80	Do		
57.5	90	Alternating competent and broken schists		
60.5	100	Do		
62	80	Fractured schist		
63.5	75	At 63 ft. vuggy qtz stringer 1/8" wide cuts core at 20° angle		

Radiometric Log



GEO RESOURCE CORPORATION

DRILL LOG

Project Blue Mountain (DMEA Docket No. 4671) **State** Washington

Hole No. 1 - Page 2 **Collar Elev.** 3518.39 **County** Stevens

Angle 90° **Hole Started** 21 Aug., 1957 **Coord.** N 13,343.21 E 12,256.41

Bearing _____ **Hole Finished** 29 Aug., 1957

.5% and above
.2% - .5%
less than .2%

0' 100' 200' 300'

SCALE 1" = 40'

Footage	% Core Recovery	Geology	Assay No.	Assay %
68.5	80			
71	95	At 70 ft.-darker gray schist with flakes of muscovite Hole caving badly at 71 ft. pulled out, cased to 71 ft. and resumed drilling with AX (Drillers)		
75.5	100	Competent schist		
80	95	Competent schist-schistosity		
85	100	dips 40° to axis of hole -		
87	100	Abundant iron oxides along		
94	100	planes of schistosity, form-		
96.5	100	ing 1/8" bands in places.		
101.5	100	Abundant muscovite		
105.25	100			
109	95			
111	90	Very badly shattered schist with some recementing of fragments		
113	75	Do		
115.5	90	Competent schist to 115 ft.- then enter another fractured		
119.5	75	zone shattered schist-120 ft.		
124.5	90	competent schist to 122.5 ft. From 122.5 to 123.5, porphyroblastic schist (andalusite?)		
127	80	Alternating competent and fractured schist		
132	100	Darker gray schist with some apparent hardening		
135	90	Crossed contact at 132 ft. Granite with pink feldspars-abundant biotite		
138	100	At 138 ft. strong joint crosses at angle of 15° to axis of hole		
143	100			
148	100			
150	90	Fractured zone		
152	90			
154	90	Hole bottomed at 154 ft.		

Radiometric Log

Ft. Microamperes

.01 .02 .03 .04 .05 .06 .07 .08

0 10 20 30 40 50 60 70 80 90 100 110 120 130

So. 157 Howard Street
Spokane 4, Washington

August 21, 1957

CHRONOLOGICAL COPY
DMEA
RECEIVED AUG 26
8/26 C 220
4 FM 700

Mr. Merrill L. Nielsen
Sinclair Oil & Gas Company
314 Uranium Center Building
Grand Junction, Colorado

Dear Mr. Nielsen:

This is in reply to your letter of August 14, 1957, regarding the technique used by Geo-Resource Corporation.

This company has used a variation of standard soil sampling techniques to indicate what is believed to be a favorable target area for exploration. Bulldozing and drilling will be done to test the anomalies so outlined.

I cannot give you any details regarding the methods they used or the results. If you wish further information, you might write to Mr. Fred O. Jones, Geo-Resource Corporation, Hutton Building, Spokane, Washington.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

cc: DMEA(2) w/ copies of incoming
USBM(2) do.
Albee

(Above refers to Docket No. DMEA-4571, Geo-Resource Corporation, Blue Mountain Mine, Contract No. Idm-E1114)

314 Uranium Center Building
Grand Junction, Colorado

August 14, 1957

Mr. Al Weissenbon
U. S. Geological Survey
Spokane, Washington

Dear Sir:

Noticed the following article in an information source we receive which is called 'New Energy Abstracts':

"URANIUM SEARCH METHOD BACKED. J. Comm. (N.Y.), 253:7, (7/31/57
Geo-Resource Corp. received a $45,960 initial grant from U. S. Defense Minerals Exploration Admin. to operate an exploration technique which can locate uranium buried beyond the reach of geiger counters. Geo-Resource will use the technique in exploring the Blue Mountain area of the State of Washington. (4836)"

I would like to know if this information is correct or if this company may merely be using a standard technique. The reading of the article would lead one to believe that it is a revolutionary technique which is not generally known.

Sincerely,

MERRILL L. NIELSEN

MLN:a

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 5 1957

DATE	INITIALS	CODE
8/5	P.H.	220
8/7	B	215
"	FMM	700

July 31, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Sec. 10, T. 29 N., R. 38 E., W.M.B.
Stevens County, Washington
Contract No. Idm-E1114

Dear Mr. Selfridge:

We are enclosing herewith the Government and Audit copies of the above-referenced contract signed by appropriate officers of the Geo-Resource Corporation. By copy of this letter, other copies of the contract are being distributed.

The justification for waiving Performance Bond requirement and third party Guaranty with respect to Grandview Mines or others is attached.

By Field Team, Region I

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: Finance Office w/encls.
USBM (2)
Albee

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 5 1957
DATE | INITIALS | CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

July 31, 1957

MEMORANDUM

To: Chairman, Operating Committee, DMEA, Washington, D. C.

From: Executive Officer, DMEA Field Team, Region I

Subject: Justification for waiving Performance Bond and third party Guaranty for Contract Idm-E1114, Docket No. DMEA-4671 (Uranium), Geo-Resource Corporation, Stevens County, Washington.

As explained in the Field Team letter of July 11, 1957, Geo-Resource Corporation was unable to obtain a Performance Bond that would guarantee payment of royalty for a 10-year period except on unreasonable terms.

In a conversation between the Executive Officer, and Karl Jasper, President of Grandview Mines, Inc., Mr. Jasper stated that Grandview Mines was unwilling to sign a third party Guaranty. He maintained that Grandview had already signed a Consent to Lien and Subordination Agreement and that this in effect makes the company liable for the payment of royalty should Geo-Resource Corporation default in their royalty payments. A third party Guaranty would, in his opinion, merely duplicate this document. Further, to act as surety for a third party Guaranty would require certain disclosures of the company's financial position which they are unwilling to risk falling into the hands of their competitors. In a letter dated July 29, 1957 (three copies attached) from William D. Weaver, President of Geo-Resource Corporation, reasons are given as to why Grandview Mines is unwilling to sign a third party Guaranty.

Geo-Resource has under a 20-year lease the land included in the contract, and consents to lien have been obtained from Grandview Mines as well as the individuals who obtained the original lease from the State of Washington. It would appear, therefore, that the Government's right to royalty is adequately protected and that neither a Performance Bond nor a third party Guaranty is necessary in this case.

A. E. Weissenborn

A. E. Weissenborn

Enclosures

cc: w/orig. (2)
USBM (2)
Finance Office
Docket
Albee

GEO-RESOURCE CORPORATION

EL. MA 4-9654 SUITE 525-526 HUTTON BUILDING CABLE: GEORESCO

SPOKANE 4, WASHINGTON

JUL 20 1957

OFFICIAL FILE COPY
D M E A
RECEIVED AUG 5 1957

DATE	INITIALS	CODE

TO: U.S. GEOLOGICAL SURVEY
ATTENTION: A. E. WE[illegible]

FROM: GEO-RESOURCE CORPORATION

RE: D.M.E.A. DOCKET NO. [illegible]

DEAR SIR,

FOLLOWING ARE THE REASONS THAT [illegible] DID NOT WISH TO SIGN AS THIRD PARTY [illegible] BONDING ARRANGEMENT AS REGARDS [illegible] EXPLORATION [illegible] THIS INFORMATION IS FROM [illegible] GRANDVIEW MINES, INC.

1. GRANDVIEW [illegible] LIEN AND SUBORD[illegible] THAT THIS WAS INADEQUATE.

2. GRANDVIEW D[illegible] WANT [illegible] OF PROVIDING A [illegible] OVER A [illegible] YEAR PERIOD OF TIME.

3. GRANDVIEW D[illegible] FINANCIAL POSITION.

[illegible] CORP.

BY [illegible] WEAVER, PRESIDENT

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/11	Murphy	700
"	Kinderf	700
7-11	Chamber	800
7/15	Martin	130
"		
7/15	Johnson	110
"	Bottenberg	100
7/26	P.K.	220
		700

JUL 25 1957

Mr. A. E. Weissenborn
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Sec. 10, T. 29 N., R. 38 E., W.M.B.
Stevens County, Washington

Dear Mr. Weissenborn:

Enclosed are the original and four copies of a proposed long-form contract signed by the Administrator for the Government, subject to the attachment of the Consents to Lien and Subordination Agreements ~~and the Performance Bond~~ listed in Annex I of the proposed contract, and also mentioned in our letter of June 14 to you. Attached to each contract form MF-200 are Annex I (1 page), Exhibit "A" (6 pages), and one map (Plate 1). Also enclosed are two extra copies of Annex I, Exhibit "A," and map (Plate 1) for the Field Team's use.

If you and the Applicant find the proposed contract in order, please insert in Article 3 of the contract form the date work shall commence, then have an authorized representative of the corporation sign the original and all copies. Thereafter, kindly distribute the copies in the usual manner.

If any part of the proposed contract does not meet with your approval and the Applicant's and cannot be amended within your delegated authority, then the original and all copies, including the extra copies, are to be returned to this office with the proposed changes for consideration.

FMMurphy/gla
7-11-57

Sincerely yours,

cc to: Admr.'s Reading File
Operating Committee
Code 700, Mr. Murphy
THKiilsgaard, Rm. 5224

W. S. Martin
ACTING Chairman, Operating Committee

Enclosures

APPROVED:

P. F. Yopes
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

P.S. Please forward justification for waiving Performance Bond requirement and third party Guaranty with respect to Grandview Mines or others.

3 party

8623

EXPLORATION PROJECT CONTRACT
GEO-RESOURCE CORPORATION
DOCKET NO. DMSA-4671

ANNEX I

The land referred to in Article 2 of the contract consists of all of section 10, T. 29 N., R. 38 E., W.M., Stevens County, Washington. Contracts for mining in section 10 were executed November 28, 1956, by the State of Washington as follows:

Name	Contract No.	Description of Land
Mae C. Hamilton	417	W½ of the SE¼
E. K. Barnes	421	W½ of the NE¼
John M. Roberts	416	W½ of the NW¼
Ruby K. Anderson	419	W½ of the SW¼
Amy Satterstrom	420	E½ of the SE¼
Paul T. Hoetzel	415	E½ of the NE¼
E. O. Dressel	414	E½ of the NW¼
Ellamae Anderson	418	E½ of the SW¼

In a Lease Agreement, dated February 19, 1957, the above-named individuals as a group leased their respective interests in section 10 to Grandview Mines, a corporation, retaining a 1 percent royalty for each individual. This Lease Agreement was approved by the State of Washington, on April 15, 1957.

In an Operating Agreement, dated May 10, 1957, Grandview Mines assigned its rights under the above-mentioned Lease Agreement to Geo-Resource Corporation, retaining a royalty of 12½% of net smelter returns on all minerals.

Consents to Lien and Subordination Agreements signed by the above-named individuals and Grandview Mines are attached hereto and made part hereof.

~~In lieu of a Consent to Lien and Subordination Agreement by the State of Washington, The Government accepts the Performance Bond of the Operator in the sum of $34,470 attached hereto and made part hereof.~~

The Consent to Lien and Subordination agreement by the State of Washington is waived.

Excerpt from Mr. Mittendorf's diary, 7/23/57:

Al Weissenborn phoned to discuss docket 4671. He said Geo-Resources, the applicant, is pushing hard for action on its application.

The docket was placed before me and I noted that the contracts had all been prepared but that we were holding them here pending advice that the Owners' Consents to Lien were obtained, and also a performance bond. In lieu of the performance bond we will accept a third-party guaranty, especially from Grandview Mines, the immediate lessor.

Al said the applicant could not get a guaranty from Grandview, although we have Grandview's Owner's Consent. He stated further that they could not obtain a performance bond without first depositing the full amount in cash in a bank.

I discussed the case with Frank Johnson and we thought this was a suitable case for waiving the performance bond. In so thinking we recognized that the land embraced in the application is owned by the State of Washington which, like other States, does not execute Owner's Consents. We recognized that had Grandview Mines itself submitted this application we would have waived the Owner's Consent and performance bond because of the financial stature of the Grandview Company. Since Grandview has elected not to explore the ground itself, but has leased it to Geo-Resources and has furnished an Owner's Consent to Lien, we feel that we are no worse off than we would have been had we made the waiver when Grandview was the applicant.

I instructed Murphy to have one page of the contract changed so as to eliminate the condition that a performance bond be attached.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7-16	Murphy	700
7-16	Kilcoyne	700
7/16	Martin	130
"		
7/16	Jorgensen	110
"	Clatterbuck	100
7/17	C	220
		700

JUL 16 1957

Department of the Interior

DMEA

14X1401(01) Revolving Fund,
Defense Production Act, Interior
(Transfer to Office of Secretary)

T E L E T Y P E

MR. A. J. WEISSENBORN
EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION I
SOUTH 157 HOWARD STREET
SPOKANE, WASHINGTON

REURTET JULY 11, DOCKET DMEA-4671, GEO-RESOURCE CORPORATION.

IN LIEU OF PERFORMANCE BOND WE WILL CONSIDER THIRD PARTY GUARANTY BY FINANCIALLY RESPONSIBLE THIRD PARTY SUCH AS GRANDVIEW MINES. WE WILL ALSO REQUIRE THE CONSENTS TO LIEN.

W. S. Martin

FMMurphy/izm 7-16-57
cc to: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Confirmation cc to Reg. I

ACTING CHAIRMAN, OPERATING COMMITTEE (HB)

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 15 1957

DATE	INITIALS	CODE
7/15	C	220
"	FMM	700

July 11, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
(formerly Mine Consultants, Inc.)
Sec. 10, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

Dear Mr. Selfridge:

Enclosed are two copies of a self-explanatory letter dated July 10, 1957, which Mr. Weaver delivered in person to the Spokane office yesterday.

On July 1, Mr. Weaver telephoned MacLaren to outline the difficulties his company was encountering in securing a Performance Bond. He was asked to write a letter stating the difficulties so we could forward it to you. Instead, he called at the office later in the day to say that the problem was being solved as outlined in the Field Team letter of July 5, 1957. It now appears that the association between Geo-Resource Corporation and Standard Ores and Alloys is still being negotiated.

In view of the preposterous requirements of the Bonding Company, we recommend that this requirement be waived providing Grandview Mines and the individuals concerned sign the Consents to Lien. We feel that such waiver, under these conditions, is to the Government's interest because without the waiver there can be no contract. If the requirement for a bond is waived and the project results in a discovery leading to production, the Government's right to royalty would be as well protected as it would be if the property comprised unpatented claims, or patented claims on which taxes were allowed to lapse. If no discovery should result, there will be no royalty right to protect.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2) w/2 copies encl.
Albee

GEO-RESOURCE CORPORATION
TEL. MA. 4-9654
SUITE 525-526 HUTTON BUILDING
SPOKANE 4, WASHINGTON
CABLE: GEORESCO

10 July, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 15 1957

DATE	INITIALS	CODE

Defense Minerals Exploration Administration
Region I
South 157 Howard
Spokane, Washington

Attention: Mr. Don MacLaren

Re: DMEA DOCKET NO. 4671

DMEA (2)

Dear Sir:

Pursuant to the request from Washington, D.C. that we obtain a bond in the amount of $21,830.00 covering the government's participation in our DMEA project, we had our insurance broker in Spokane, the Feyerabend Insurance Agency, 716 Spokane & Eastern Building, contact all of the local representatives for the national bonding companies. None of the companies contacted will handle these bonds on a normal surety bond basis due to the fact that they must be in effect for ten years and the bonding companies do not wish to assume a liability for that length of time.

The most favorably inclined company, during our investigation of this situation, was Fireman's Fund Insurance Company, one of the largest in the world. In fact, they just recently purchased another bonding company and extended its services through their entire sales organization. This company also carries all of our general liability insurance. However, the last communication from their headquarters office in San Francisco gives us to understand that the only circumstances under which the bond could be written are these; that if we have a co-signer of the bond who has many hundreds of thousands of dollars worth of liquid assets, and if we put up, in the form of a cashier's check, the $21,830.00 for them to hold for ten years they will write the bond and charge us 12½% interest, or roughly $275.00 a year. These people, at present, have two other DMEA bond deals in force. One of these was written two years ago in northern California, the other was written here, on the Northwest Uranium project on the Spokane Indian Reservation. In other words, they are not complete novices as regards the government requirements, etc. You can contact the Feyerabend Insurance Agency for confirmation of these statements at RIverside 7-5272.

Obviously, under these conditions we cannot participate in this project and we hope that the DMEA people in Washington

[illegible] be able to give us some administrative relief from this [illegible]ution to the granting of the loan.

We are at present getting all of the required signatures on the Consent to Lien and Subordination Agreements from Grandview, and the individual lease holders. In addition to this we, [illegible] Geo-Resource Corporation, will give the government whatever individual and corporate surety that we can in any form requested by Washington.

Thanking you in advance for whatever consideration may be given this request, I remain,

Very truly yours,

/s/

William D. Weaver,
President

WDW/mcd

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 8 1957

DATE	INITIALS	CODE
7/8	C	220

July 5, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
(formerly Mine Consultants, Inc.)
Sec. 10, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

Dear Mr. Selfridge:

Mr. William D. Weaver, President, Geo-Resource Corporation called at the DMEA office on July 1, 1957, to advise us that the matter of a Performance Bond is being handled by Standard Ores and Alloys of 120 Wall Street, New York City who will make arrangements directly with Washington.

Should a contract be offered, it is the intent of Geo-Resource to assign it to Blue Mountain Mining Company in which Standard Ores and Alloys own 51 percent and Geo-Resource own 49 percent. According to Mr. Weaver, Standard Ores and Alloys will be the financial backers and Geo-Resource Corporation personnel will carry out the project.

Enclosed are nine extra copies of a map showing the location of the property and the proposed work.

The two sets of Consent to Lien and Subordination Agreement enclosed with your letter of June 14, 1957, have not yet been signed, but will be before a contract is presented for signature, if they are still desired, in view of the Performance Bond.

In your letter of June 10, 1957, you ask us to comment on the estimated time required to bulldoze access roads, trenches, and preparation of drill sites, and the estimated time to complete the contract. The slopes are steep, the timber and underbrush are abundant, and the overburden may vary in thickness from a few feet to as much as 10 or 12 feet. There is no drill site to which a drill

can be moved without some road preparation and the sites between trenches will all have to be leveled. Therefore, although 40 hours might prove excessive for drill site preparation, either or both the 80 hours for trenching and the 60 hours for access roads may prove insufficient. The overall time of 180 hours or 3.2 weeks for bulldozing we do not think will be excessive.

Allowing an average drilling rate, including moving and setting up time, of 30 feet per day for a 6-day week, or 180 feet per week, it will require 16.6 weeks to drill 3,000 feet of hole. As little if any of the bulldozing and drilling can be done simultaneously, the total estimated time is 19.8 weeks or 4.4 months. We allowed 5 months to take care of any unforseen delays, but would not object strongly to reducing the total time for the project to 4 months.

By Field Team, Region I, NW Dist.

Donald R. MacLaren

Donald R. MacLaren
Alternate Acting Exec. Officer
U. S. Geological Survey

S W Zoldok by TEH

S. W. Zoldok, Acting Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
Geologist

DRAFT
FMM 6/19/57

MF-200
(Revised June 1954)

Docket No. DMEA 4671

Commodity Uranium

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] Geo-Resource Corporation

whose mailing address is Suite 525-528 Hutton Building
Spokane 4, Washington

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 Plate 1

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 Washington, County of Stevens, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

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

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: See Annex I

(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: .....

See Annex 1

(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. The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before June 1, 1958 (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."

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 $45,960.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $34,470.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

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

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

Subcategory (c)—Labor.

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—

(a) 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 of work."

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

(c) Subparagraphs (1) through (7) of Article 6(a) are deleted.

(d) 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.

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

(d) Notwithstanding any other provision of the Contract, the allowable unit cost per foot of a drilling item is the average unit cost per foot computed on the basis of all the actual unit costs of said drilling item incurred by the Operator: Provided, That the Government will not contribute to any portion of an average unit cost of a drilling item that exceeds the estimated unit cost of said item set forth in the contract.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By .....

.....
(Operator)

By .....

.....

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

.....

[CORPORATE SEAL]

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

EXPLORATION PROJECT CONTRACT
GEO-RESOURCE CORPORATION
DOCKET NO. DMEA-4671

ANNEX I

The land referred to in Article 2 of the Contract consists of all of section 10, T. 29 N., R. 38 E., W.M., Stevens County, Washington. Contracts for mining in section 10 were granted November 28, 1956 by the State of Washington as follows:

Name	Contract No.	Description of Land
Mae C. Hamilton	417	W½ of the SE¼
E. K. Barnes	421	W½ of the NE¼
John H. Roberts	416	W½ of the NW¼
Ruby K. Anderson	419	W½ of the SW¼
Amy Satterstrom	420	E½ of the SE¼
Paul T. Hoetzel	415	E½ of the NE¼
E. O. Dressel	414	E½ of the NW¼
Ellamae Anderson	418	E½ of the SW¼

In a Lease Agreement, dated February 19, 1957, the above-named individuals as a group leased their shares of section 10 to Grandview Mines, a corporation, retaining a 1 percent royalty for each individual. This Lease Agreement was approved by the State of Washington, on April 15, 1957.

In an Operating Agreement, dated May 10, 1957, Grandview Mines assigned its rights under the above-mentioned Lease Agreement to Geo-Resource Corporation.

Consents to Lien and Subordination Agreements signed by the above-named individuals and Grandview Mines are attached hereto and made part hereof.

In lieu of a Consent to Lien and Subordination Agreement by the State of Washington, the Government accepts the Performance Bond in the sum of $34,470 attached hereto and made part hereof.

EXPLORATION PROJECT CONTRACT
GEO-RESOURCE CORPORATION
DOCKET NO. IMEA-4671

EXHIBIT "A"

Description of the Work

General Provisions:

The object of this project is to explore for uranium ore deposits in a northeasterly trending quartz monzonite-metasediments contact zone that traverses the subject property. The work will consist of bulldozer trenching and core drilling holes to depths of 100, 150, and 200 feet.

The primary purpose of the trenching is to locate more closely the exact position of the contact in order to place the drill holes to the best advantage. However, sections of the trenches showing significant mineralization shall be sampled. Such samples shall be split, the Operator using one-half for assay purposes; the other half shall be stored in a suitable container properly identified as to sample number, trench number, the location where procurred in the trench, the classification of the material sampled, and the length of the channel cut to obtain the sample.

Sections of core showing significant mineralization shall be split, the Operator using one-half for chemical assay purposes; the other half shall be stored with the non-mineralized core in boxes properly identified as to hole number and with markers placed in the core sections to indicate the depth represented.

The stored drill core and trench samples shall be for Government inspection and possible use. With previous Government approval the Operator may dispose of the core and trench samples.

The drill holes shall be logged geologically and probed radiometrically by the Operator. Records of such logging and probing, together with the assay certificates of the core and trench samples, shall be submitted with the Operator's monthly progress report, which shall also include a map or sketch showing the location of all holes and trenches completed during the reporting period.

A D-8 Caterpillar dozer or equivalent unit of any other make shall be used in cutting trenches and in preparing access roads and drill sites.

If necessary the drill holes shall be cemented and drilled out or reamed and cased. The Government will not participate in the cost of an incomplete hole or to one that bottoms less than AX core size.

The Operator shall employ a competent supervisor full time to direct the work and a consultant geologist part time to assist in completing the project in a satisfactory manner.

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

The work shall be performed in two stages. The Operator shall perform all the Stage I work and as much of Stage II work as is approved of in writing by the Government.

Stage I

The approximate location of the work to be performed under Stage I is shown on the map entitled "Plate 1, Plan, Showing Recommended Access Road, Trenches, and Diamond Drill Holes, Geo-Resources, Inc.---," attached hereto and made part hereof.

The work shall consist of bulldozing the access roads, drill sites, and seven (7) trenches normal to and cutting the quartz monzonite-metasediments contact at intervals of about 400 feet.

In or adjacent to each of the trenches, 2, 3, 5, and 7, three holes shall be drilled along a line at right angles to the contact. In each of these lines one hole about 50 feet from the contact shall be drilled to a depth of 100 feet in the quartz monzonite; two holes shall be drilled in the metasediments at distances of about 50 and 150 feet from the contact to depths of 150 and 200 feet, respectively. No holes shall be drilled in trenches 1, 4, and 6, but approximately at 150 feet on each side of these trenches and about 50 feet from the contact holes shall be drilled to depths of approximately 200 feet in the metasediments.

Not in excess of seven (7) trenches shall be excavated nor more than eighteen (18) holes shall be drilled under this Stage I of the contract.

Stage II

Stage II will consist of additional core drilling to further explore favorable zones indicated by the trench work and drilling under Stage I.

The work shall consist of preparing access roads and drill sites, and drilling an aggregate of not more than 2,000 feet of holes.

No hole drilled under this Stage II shall be closer than approximately 100 feet to any other hole drilled under the contract, nor within 100 feet of the boundary lines of the property.

Category (6) - New Building, Fixtures, & Installations: None

Category (7) - Miscellaneous:

Payroll taxes, 14.9% of supervisor's salary ($2,400.00)	$357.60	
Chemical analyses for U_3O_8 content of 300 samples @ $5/sample	1,500.00	
300 cardboard core boxes @ $1/each	300.00	
300 sample sacks @ $0.35/each	105.00	
Transportation of samples	20.00	$2282.60
Total Estimated Cost Stage I		$28,403.92

Stage II

Category (1) - Independent Contracts:

Bulldozer work:		
Drill site preparation 24 hr. @ $17.50/hr.	$420.00	
Transporting dozer 100 miles @ $1/mile	100.00	
Diamond drilling:		
Core drilling 2,000 ft. @ $6/ft.[1/]	12,000.00	
Driving standpipe 60 ft. @ $7.50/ft.	450.00	
Cementing & drilling out or reaming & casing 60 ft. @ $3/ft.	180.00	
Standby time 16 hrs. @ $7.50/hr.	120.00	$13,270.00

Category (2) - Personal Services:

Subcategory (a) - Supervision:		
Supervisor, 3 mths. @ $600/mth.	$1,800.00	
Subcategory (b) - Technical Services:		
Consulting geologist 5 days per month, 15 days @ $50/day	750.00	
Subcategory (c) - Labor:	None	$2,550.00

Category (3) - Operating Materials & Supplies:

Gasoline 225 gals. @ $0.36/gal.	$81.00	$81.00

Category (4) - Operating Equipment:

Subcategories (a) and (b):	None	
Subcategory (c) - Depreciation:		
Jeep station wagon 3 mths. @ $33.33/mth.	$100.00	$100.00

Category (5) - Initial Rehabilitation & Repairs: None

Category (6) - New buildings, fixtures, & Installations: None

Category (7) - Miscellaneous:

Payroll tax, 14.9% of supervisor's salary ($1,800.00)	$268.20	
Chemical analyses for U_3O_8 content of 200 samples @ $5/sample	1,000.00	
200 cardboard coreboxes @ $1/each	200.00	
200 sample sacks @ $0.35/each	70.00	
Transportation of samples	15.00	$1553.20

Total Estimated Cost Stage II $17,554.20

S U M M A R Y

Total Estimated Cost Stage I	$28,403.92
Total Estimated Cost Stage II	$17,554.20
Total Estimated Cost of Project(rounded)	$45,960.00
Government Participation @ 75%	$34,470.00

1/ See Article 13(d)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/14	Murphy	700
"	Ellis	700
	Long	140
	Morgan	140
6/14	SCS	130
6/14	Johnson	110
"	Rutherford	100
		220
		700

JUN 14 1957

Mr. A. E. Weissenborn
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane 4, Washington

INTERIOR DEPT.
JUN 12 1957
SOLICITOR

Contract No. DMA
B-1114

Re: Docket No. DMA-4671 (Uranium)
Geo-Resource Corporation
(formerly Mine Consultants, Inc.)
Sec. 10, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

Dear Mr. Weissenborn:

Since our letter of June 10 we have received your letter, dated June 5, 1957, enclosing copies of the documents showing the Applicant's right to explore the subject property.

In view of these instruments, we are enclosing two sets of Consent to Lien and Subordination Agreements which should be signed by the parties listed.

To expedite matters, the proposed contract, if approved by the Administrator, will be forwarded to the Field Team subject to the attachment of the above-mentioned agreements and a Performance Bond equal to the Government's participation before being executed by the Applicant.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

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

N. E. Nelson
Member, Geological Survey (GCS)

RECEIVED
JUN 13 1957
ASSOC. SOLICITOR
MINERAL RESOURCES

FMMurphy/izm 6-12-57
cc to: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/13	Ellis	700
	Murphy	

June 13, 1957

Memorandum

To: The File

From: Ernest Wm. Ellis, Director
Division of Rare and Miscellaneous
Metals

Subject: Phone call from New York
Re:- Status of application
Geo-Resource Corporation
(formerly Mine Consultants, Inc.)
Docket No. DMEA-4671

Mr. Charles Katlin of Standard Ore and Alloys Corp., phoned from New York City inquiring as to status of application. I asked him if he was connected with the subject Applicant and he replied that his company was negotiating with the Applicant to operate the project and that he had a copy of the application in front of him. It seems that he is the Charles Katlin that was a Commodity Specialist for the Bureau of Mines and worked on many of DMEA's chrome applications. I considered it proper to tell him the following:

I told Katlin that the Field Team report had been received and that we were processing the application. I said it is possible that action may be taken within the next two weeks or so. Furthermore, I told him we had sent a letter to Weissenborn requesting Consent to Lien and Subordination Agreements from the many landowners. Katlin replied that they, the Standard Ore and Alloys Corp., had had some difficulty with their title searches. He wanted to know if DMEA had any trouble getting the Consents to Lien and, if a contract was proposed, what steps would be taken then. I replied that under those conditions we would insist on a Performance Bond as we would probably have to do if any of the land was State owned. This seemed to satisfy him.

Ernest Wm. Ellis

Ernest Wm. Ellis

8623

rm 7
6)

OFFICIAL FILE COPY

Date	Surname	Code
6/5	Murphy (E.)	700
6/7	Ellis	700
6/7	GCS	130
7	Northcutt	100
6/10	C	220
		700

JUN 10 1957

Mr. A. E. Weissenborn
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
(formerly Mine Consultants, Inc.)
Sec. 10, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

Dear Mr. Weissenborn:

This is to acknowledge the Field Team's letter of May 24, 1957, and the report of examination, relating to the captioned application.

In order to process the application we will require copies of the leases and other instruments showing that Geo-Resource Corporation has the right of possession of the subject land for the purpose of a possible contract.

According to the report of examination, the Applicant has a 20-year operating agreement with Grandview Mining Company to explore and mine the subject property. We will require a copy of this agreement and, also, six copies of a Consent to Lien and Subordination Agreement signed by Grand View Mining Company.

If the State of Washington retains an overriding royalty on the subject claims and its Consent to Lien and Subordination Agreement cannot be obtained, we will require a Performance Bond to protect the Government's interest in the event a contract is approved. The Field Team should advise the Applicant relating to this requirement.

Referring to the proposed contract recommended by the Field Team, it appears that some of the costs are excessive. For example, the 60 hours estimated for access roads and 40 hours for drill site preparation work and, also, the estimate that it will require five months to complete ten days of trenching and 3,000 feet of diamond drilling seem very high. We would appreciate your comments relating to these estimates.

8623

We note that the Field Team did not forward nine extra copies of a map showing the location of the property and the proposed work with its recommendation. Will you kindly forward these copies.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JLB)

APPROVED:

Frank D. Lamb (JLB)

Member, Bureau of Mines

Thor H. Kiilsgaard (JLB)

Member, Geological Survey

FMMurphy/gla
6-6-57
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, Rm. 5224
Code 700, Mr.Murphy

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 10 1957

DATE	INITIALS	CODE
6/10	C	220
6-11	FMM	700

June 5, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA -4671 (Uranium)
Geo-Resource Corporation
Blue Mountain property
Stevens County, Washington

Dear Mr. Selfridge:

Enclosed are two sets of 11 documents in support of the applicant's legal right to explore this property. The sets include eight individually signed contracts for mining; a Lease Agreement dated February 19, 1957 between Grandview Mines, Inc. and Mae C. Hamilton, E. K. Barnes, John H. Roberts, Ellamae Anderson, Paul T. Hoetzel, E. O. Dressel, Amy Satterstrom and Ruby K. Anderson; Approval of Agreement for Consolidation of Mining Contracts on State Land issued by the Department of Natural Resources on April 15, 1957; and an Operating Agreement dated May 10, 1957 between Grandview Mines, Inc., and Geo-Resource Corporation.

We have retained copies for our files.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team Region I, NW Dist.

cc: USBM (2)
Sample

ORIGINAL S. F. No. 4194—6; 10—5C. 19442.

DEPARTMENT OF PUBLIC LANDS
OFFICE OF COMMISSIONER

CONTRACT FOR MINING

THIS INDENTURE, Made this 28th *day of* November, 194/56, *by and between the STATE OF WASHINGTON, party of the first part, and* E. K. BARNES *of* 1008 West 19th, Spokane, *State of Washington, party of the second part:*

WITNESSETH, That the party of the first part, in consideration of the sum of Twenty and no/100 ($20.00) *Dollars, to it in hand paid by the party of the second part, being the first annual payment as provided for in chapter 255 of the Session Laws of 1927, the receipt of which is hereby acknowledged, the same being the first annual payment to be made hereunder, and in further consideration of the covenants and conditions herein contained, to be kept and performed by the party of the second part, does hereby contract, lease and demise to the party of the second part, for the term of* Twenty (20) *years from and after the* 14th *day of* November, 194/56, *the following described land situate in the county of* Stevens, *State of Washington, viz.:*

W½NE¼, Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres, more or less, according to the government survey thereof.

The above described land has been leased by the State and the lessee herein may not actually enter upon the land until a waiver has been secured from the holder of Lease No. 34629. A legal method is provided in the event the same is refused.

which premises are leased to the party of the second part for the purpose of exploring for and mining and taking out and removing therefrom the ore therein contained, containing copper, silver, lead, gold and other valuable minerals (except coal), which is or which hereafter may be found in, on or under said land, together with the right to construct all buildings, make all excavations, openings, ditches, drains, railroads, wagon roads, concentrators, power plants, smelters and other improvements, upon said premises which are or may become necessary or suitable for the mining or removal of ore containing copper, lead, silver, gold or other valuable minerals (except coal) from said premises with the right, during the existence of this contract and lease, to ~~*cut and use the timber found on said premises for fuel and so far also as may be necessary, for the construction of buildings required in the operation of any mine or mines*~~ *hereby leased and also* ~~*the timber necessary for drains, tramways and supports for such mine or mines*~~*: PROVIDED, That the party of the second part shall pay to the party of the first part, on the first day of each calendar month for the full term of this contract, a royalty, the amount of which shall be equivalent to* Four (4)% *of all moneys received from the sale of all minerals from said lands covered by this contract and lease after deducting therefrom the cost of transportation and treatment: And PROVIDED, further, That in addition to the royalty herein provided for, the contract holder and lessee shall pay to the party of the first part an annual rental of* $20.00 *said rental to be paid annually in advance.*

Monthly payments of the royalty hereinbefore mentioned are to be made by the party of the second part to the Commissioner of Public Lands of the State of Washington, and to be accompanied by a sworn statement representing in detail the output of the minerals extracted from said lands, and the sale or other disposition thereof, for the calendar month next preceding such payment. The party of the second part agrees that the Commissioner of Public Lands or any agent appointed by him for the purpose, shall have the right of access at any and all times to enter the mine and examine all shafts, tunnels and other mining works upon, in or under said lands, and to inspect the books, papers and accounts of the party of the second part.

The party of the second part hereby further agrees that all carriers employed for the taking or carrying or transportation of any and all ores, precious metals or minerals constituting the output of said mine or mines or operated upon said lands are hereby authorized and required, upon demand by said Commissioner of Public Lands or his authorized agent, to furnish said Commissioner or his agent with duplicates of all shipping bills, way bills, together with full and complete statements of all minerals, or precious metals of any and every character taken or carried from said lands.

It is further provided, that the party of the second part shall have the right at any time to terminate this agreement in so far as it requires the party of the second part to mine ore on said land or to pay a royalty therefor, by giving written notice to the party of the first part which shall be served by leaving the same with the Commissioner of Public Lands, who shall officially, in writing, acknowledge the receipt of said notice and the foregoing contract shall terminate sixty (60) days thereafter and all arrears and sums which may be due under the same up to the time of its termination as set forth in said notice shall be paid upon settlement and adjustment thereof.

The party of the first part further agrees that the party of the second part shall have the right under this agreement to contract with others to work such mine or mines or any part thereof or to sub-contract the same and the use of said land or any part thereof for the purpose of mining for ore with the same rights and privileges as are herein granted to the said party of the second part.

The party of the second part agrees that it will in each year during the life of this contract perform work or make improvements upon the premises hereinbefore described to an amount of not less than one hundred dollars ($100.00) for each twenty (20) acres included therein and will file with the Commissioner of Public Lands an affidavit of the performance of said work, which affidavit shall give the nature and extent thereof.

And it is further expressly agreed that if the party of the second part shall fail to perform said labor as hereinbefore provided that said contract shall then, at the option of the Commissioner of Public Lands, be forfeitable and the Commissioner of Public Lands shall thereupon, if he shall elect to forfeit this lease and contract, serve upon the party of the second part, or its assignee, if notice of such assignment has been given to the Commissioner of Public Lands, a notice that unless it performs such work within ninety (90) days after the giving of said notice, that this contract and lease shall thereupon become forfeited, terminated and at an end, such ninety (90) day period to commence from the date said notice is mailed by the Commissioner of Public Lands, all such notices to be given by registered mail and if the address of the holder of this contract is unknown then such notice shall be given by posting a copy thereof on said land at the point of any mining operations thereon, which notice shall thereupon be deemed sufficient.

It is also agreed by the party of the second part that a breach of any of the terms or conditions herein contained, or failure to perform, or a violation of any of the provisions of law, shall work an immediate forfeiture of this contract and all rights thereunder as well as all improvements made under authority thereof.

The hereinabove described lands are leased subject to all the provisions of chapter 109 of the Session Laws of 1911, relating to easements for rights of way.

IN TESTIMONY WHEREOF, The parties hereto have executed these presents in duplicate, setting their hands and seals this 5th *day of* January *A. D. 19~~56~~* 57

STATE OF WASHINGTON.

By Otto Case
Commissioner of Public Lands.

Witness Esther Anderson

Witness Mae C. Hamilton

E H Barnes

P. O. Address 1008 West 19th

Spokane, Washington

LEASE AGREEMENT

THIS AGREEMENT made and entered into this 19th day of February, 1957, by and between GRANDVIEW MINES, a corporation, hereinafter referred to as First Party, and MAE C. HAMILTON, E.K. BARNES, JOHN H. ROBERTS, ELLAMAE ANDERSON, PAUL T. HOETZEL, E.O. DRESSEL, AMY SATTERSTROM and RUBY K. ANDERSON, hereinafter referred to as Second Parties,

WITNESSETH:

WHEREAS, the Second Parties are holders of certain leases under certain contracts of mining from the State of Washington, through the Commissioner of Public Lands, of the following described mining claims in Stevens County, Washington, to-wit:

NAME	CONTRACT NO.	DESCRIPTION
Mae C. Hamilton	417	W½SE¼ Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres or less, according to government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 issued under application No. 44678.
E.K. Barnes	421	W½NE¼, Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres or less according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 issued under Application No. 44678.
John H. Roberts	416	W½NW¼ Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres or less, according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 issued under Application No. 44678.
Ellamae Anderson	418	E½SW¼, Section 10, Township 29 North, Range 38 E.W.M., containing 80 acres or less according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 heretofore issued under Application No. 44678.

NAME	CONTRACT NO.	DESCRIPTION
Paul T. Hoetzel	415	E½NE¼, Section 10, Township 29 North, Range 38 E.W.M., containing 80 acres or less, according to the government survey thereof. Subject to the rights granted to the holder of lease No. 34629 issued under Application No. 44678.
E.O. Dressel	414	E½NW¼ of Section 10, Township North, Range 38 E.W.M., containing 80 acres or less, according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 issued under Application No. 44678.
Amy Satterstrom	420	E½SE¼, Section 10, Township 29 North, Range 38 E.W.M., containing 80 acres or less, according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 heretofore issued under Application No. 44678.
Ruby K. Anderson	419	W½SW¼, Section 10, Township 29 North, Range 38 E.W.M, containing 80 acres or less, according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 heretofore issued under Application No. 44678.

WHEREAS, said mining contracts are all for a period of twenty (20) years upon an annual rental plus royalty basis as provided in said contracts;

NOW, THEREFORE, in consideration of the payment of $1.00 to each other by each of the parties hereto and the mutual agreements of the parties hereto and of the valuable consideration from the First Party to the Second Parties, it is agreed as follows:

1. Each of the second Parties hereby let, lease and demise to First Party the land and interest covered by their respective mining contracts hereinabove itemized, for the period beginning as of the date hereof, and continuing in each case until the expiration date of the respective mining contracts, and in case of the renewal of any of said mining contracts at the expiration date thereof, this lease shall be extended to cover said renewal period under the same terms and conditions.

2. The purpose of this lease, and the agreement of each of the Second Parties among each other and with First Party in entering into the lease is to consolidate their respective mining contracts under a common management to permit proper operation of larger scale developments. The First Party agrees to see to the exploration of and carrying on of the mining operation on such property, such as is feasible and within its means and ability, for the purpose of developing said premises into a producing mining operation.

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3. First Party agrees to and assumes to carry out the terms and conditions of said mining contract with the State of Washington; and if the First Party is in possession of the said properties, or any of them, at such time as it is possible to obtain renewals of the mining contracts with the State of Washington, the holder of said mining contract and First Party will procure renewals of said mining contracts.

4. As further consideration for this lease, First Party agrees to pay directly to each of the Second Parties a royalty of one (1%) per cent of the net smelter returns or other receipts from the sale of metals or minerals produced from the property held under the particular contract for mining of each of the Second Parties. It is understood that each of the Second Parties shall be entitled to this one (1%) per cent royalty only out of the production from his particular leased property. Such payment of the one (1%) per cent royalty shall be made to each of the Second Parties for his respective interest by First Party on or before the First of February of each year for the preceding year's sales of metal or minerals produced from his particular property.

In addition First Party agrees to pay all royalties and rentals due to the State of Washington from time to time on the leased properties and agrees to make the payment to the State of Washington on behalf of each of the Second Parties from whom such rentals and royalties are due under their particular contract. First Party further agrees to make all reports of work done and such other reports as are necessary from time to time to keep said mining contracts in good standing.

Each of the Second Parties will from time to time as required sign all reports and papers necessary to keep the mining contracts in good standing and on demand will authorize this to be done for them by some person appointed under an irrevocable power of attorney, which said attorney-in-fact Second Parties agree to appoint for this purpose.

5. Second Parties agree that their respective mining contracts are to be kept in the hands of First Party during such period as this lease is in effect.

6. If at any time the First Party decides there are not sufficient commercial ores to be mined from said premises, or any part thereof, it may at its option abandon the leases or contracts or any of them, but before doing so it shall give the Second Parties, or such of them as are affected, thirty days written notice of its intention so to do, and upon such abandonment it may remove all buildings owned or constructed by it and all machinery and equipment from said premises within 12 months after the date of said abandonment, and the First Party shall not be responsible for the property after said abandonment.

7. Should the First Party fail to make the payments or keep or perform any of the covenants and agreements herein mentioned, the same shall constitute a forfeiture of the agreement and thereupon Second Parties, at their option, may declare such forfeiture by written notice to the First Party and at the expiration of thirty (30) days thereafter, the terms of this agreement meanwhile not having been complied with, the Second Parties may enter into said premises and take possession of them and this agreement may be at an end and null and void and the First Party shall forfeit to Second Parties as liquidated damages all payments made hereunder and immediately surrender possession of said premises.

8. First Party agrees that Second Parties may from time to time enter upon said leased premises for the purpose of inspection.

9. In case of abandonment of the property leased hereunder, or any part thereof, it is understood and agreed that Second Parties' contract or such ones that may be abandoned will be returned to the said contract holder with all rentals paid to the time of abandonment.

10. This agreement shall be binding upon the successors in interest and assigns of all the parties hereto.

11. It is further understood and agreed that the First Party may have possession of said property immediately.

12. It is understood and agreed that First Party is familiar with the terms of the mineral contracts and will abide by the same and assume all liabilities of the Second Parties under said mining contracts.

13. It is further understood and agreed that this agreement is subject to the approval of the Commissioner of Public Lands of the State of Washington.

GRANDVIEW MINES

BY Karl W. Jaeger
President.

ATTEST:

E. K. Barnes
Secretary

FIRST PARTY

Mae C. Hamilton
E. K. Barnes
John H. Roberts
Ellsworth Anderson
Paul Foxtel
E. O. Dressel
Amy Patterson
Ruby K. Anderson

SECOND PARTIES

STATE OF WASHINGTON)
ss.
County of Spokane)

On this 18th day of February, 1957, before me, a Notary Public in and for the above named County and State, personally appeared KARL W. JASPER and F. R. Barnes to me known to be the President and Secretary respectively of the corporation that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and eachon oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Joseph Kappi
Notary Public in and for the State of Washington, residing at Spokane

STATE OF WASHINGTON)
ss.
County of Spokane)

I, the undersigned, a notary public in and for the State of Washington, hereby certify that on this 12th day of February, 1957, personally appeared before me Amy Satterstrom, and Mae C. Hamilton

to me known to be the individuals described in and who executed the foregoing instrument, and acknowledged that they signed and sealed the same as their free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal the day and year last above written.

Ila Cox
Notary Public in and for the State of Washington, residing at Spokane

STATE OF WASHINGTON)
ss.
County of Spokane)

I, the undersigned, a notary public in and for the State of Washington, hereby certify that on this 13th day of February, 1957, personally appeared before me RUBY K. ANDERSON

to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that she signed and sealed the same as her free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal the day and year last above written.

Ila Cox
Notary Public in and for the State of Washington, residing at Spokane

STATE OF CALIFORNIA)
County of Riverside) ss.

I, the undersigned, a notary public in and for the State of California, hereby certify that on this 16th day of February, 1957, personally appeared before me E.O. DRESSEL, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that he signed and sealed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal the day and year last above written.

Notary Public in and for the State of California, residing at Riverside

My Commission Expires Nov. 6, 1959

STATE OF WASHINGTON)
County of Spokane) ss.

I, the undersigned, a notary public in and for the State of Washington, hereby certify that on this 18th day of February, 1957, personally appeared before me

JOHN H. ROBERTS and ELLAMAE ANDERSON

to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that they signed and sealed the same as their free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal the day and year last above written.

Notary Public in and for the State of Washington, residing at Spokane

STATE OF WASHINGTON)
County of Spokane) ss.

I, the undersigned, a notary public in and for the State of Washington, hereby certify that on this 18 day of February, 1957, personally appeared before me

J. K. Barnes.

to me known to be the individuals described in and who executed the foregoing instrument, and acknowledged that signed and sealed the same as free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal the day and year last above written.

Notary Public in and for the State of Washington, residing at Spokane

STATE OF WASHINGTON)
) ss.
County of Spokane)

I, the undersigned, a notary public in and for the State of Washington, hereby certify that on this 19th day of February, 1957, personally appeared before me PAUL T. HOETZEL, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that he signed and sealed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal the day and year last above written.

Ila Cox
Notary Public in and for the State of W shington, residing at Spokane

DEPARTMENT OF NATURAL RESOURCES
Office of Commissioner

In re: Approval of Agreement for Consolidation of Mining Contracts on State Land in Section 10, Township 29 North, Range 38 East, W.M., By Grandview Mines of Spokane, Wn.

ORDER
April 15, 1957

It appearing to the Commissioner at this time that the following Contracts for Mining state lands in Section 10, Township 29 North, Range 38 East, W.M., have been issued for a period of twenty years from November 14, 1956:

Application No.	Contract No.	Name of Contract Holder	Area
50066	415	Paul T. Roetzel	80 acres - E½NE¼
50067	414	E. O. Dressel	80 acres - E½NW¼
50068	416	John H. Roberts	80 acres - W½NW¼
50069	417	Mae C. Hamilton	80 acres - W½SE¼
50070	418	Ellamae Anderson	80 acres - E½SW¼
50071	419	Ruby K. Anderson	80 acres - W½SW¼
50072	420	Amy Satterstrom	80 acres - E½SE¼
50073	421	E. K. Barnes	80 acres - W½NE¼

It further appearing that the above listed holders of mining contracts have entered into an agreement dated February 19, 1957, entitled "Lease Agreement", with Grandview Mines, a corporation, to consolidate the above listed mining contracts under a common management to permit operation of larger scale developments, and

That a complete statement of plans of operation and said consolidation agreement have been submitted to and filed with the Commissioner of Public Lands for approval in accordance with RCW 78.20.100, and

That investigation by the Commissioner indicates the need for certain regulation of possible damage to state owned lands, it is therefore

ORDERED and DETERMINED that said consolidation agreement and plans of operation are approved subject to the following conditions:

Safety

Full compliance will be made with RCW 78.12.010 in the matter of shafts and excavations.

Soil Erosion and Silting

Every reasonable precaution will be taken to prevent and control unnecessary or excessive damage to the state lands from soil erosion and silting of streams.

Forest and Vegetative Cover

Every reasonable precaution will be taken to prevent unnecessary or excessive destruction of forest and desirable vegetative cover.

Restoration of Ground Conditions

Upon the completion of mining and explorations activities or upon the abandonment of operations, the mining contract holders agree to make reasonable restoration of original ground conditions for the purpose of removing danger to man and animal, prevention of soil erosion and silting of streams, and restoration of the vegetative and forest producing capacity of the area.

Compliance Approval

Final approval for satisfactory compliance with the above regulations will rest with the Commissioner of Public Lands.

Changes in Plans of Operation

All changes in plans of operations and consolidation agreement shall be subject to the approval of the Commissioner of Public Lands.

Bond

Before commencing operations under authority hereof, Grandview Mines, a corporation, shall furnish a cash deposit or bond in lieu thereof in the sum of $5,000.00 conditioned upon compliance with terms and conditions of the above mentioned mining contracts, this order of approval, and all further laws, rules, and regulations pertaining to mining operations under said consolidation agreement.

IT IS FURTHER ORDERED AND DETERMINED that non-compliance with all laws, rules, and regulations now or hereafter adopted or enacted and pertaining to mining operations shall be grounds for terminating this order of approval.

Dated this 15th day of April, A. D., 1957

Bert L. Cole

BERT L. COLE

Commissioner

MB:rp

OPERATING AGREEMENT

THIS AGREEMENT made and entered into this 10 day of May, 1957, by and between GRANDVIEW MINES, a corporation, hereinafter referred to as FIRST PARTY, and GEO-RESOURCE CORPORATION, hereinafter referred to as SECOND PARTY,

WITNESSETH:

WHEREAS, the First Party has contracted with the below designated individuals regarding their respective Contracts For Mining from the State of Washington, which contracts have been approved by the Commissioner of Public Lands, on the following described school lands situated in the County of Stevens and particularly described as follows:

NAME	NO	DESCRIPTION
Mae C. Hamilton	417	W½SE¼ Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres or less, according to government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 issued under Application No.44678
E.K. Barnes	421	W½NE¼, Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres or less according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 issued under Application No. 44678
John H. Roberts	416	W½NW¼, Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres or less, according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 issued under Application No. 44678
Ellamae Anderson	418	E½SW¼, Section 10, Township 29 North, Range 38 E.W.M., containing 80 acres or less according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 heretofore issued under Application No. 44678
Paul T. Hoetzel	415	E½NE¼, Section 10, Township 29 North, Range 38 E.W.M., containing 80 acres or less, according to the government survey thereof. Subject to the rights granted to the holder of lease No. 34629 issued under Application No. 44678

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NAME	NO.	DESCRIPTION
E.O. Dressel	414	E½NW¼ of Section 10, Township 29 North, Range 38 E.W.M., containing 80 acres or less, according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 issued under Application No. 44678
Amy Satterstrom	420	E½SE¼, Section 10, Township 29 North, Range 38 E.W.M., containing 80 acres or less, according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 heretofore issued under Application No. 44678
Ruby K. Anderson	419	W½SW¼, Section 10, Township 29 North, Range 38 E.W.M., containing 80 acres or less, according to the government survey thereof. Subject to the rights granted to the holder of Lease No. 34629 heretofore issued under Application No. 44678.

WHEREAS, First Party has obligated itself to conduct the prospecting and exploration and also to develop and mine said properties;

Now, Therefore, in consideration of the payment of One Dollar ($1.00) to each other by each of the parties hereto and the mutual agreements of the parties hereto,

IT IS AGREED AS FOLLOWS:

(1) Second Party agrees to comply fully with all the terms and the particular surface rights reservations of the respective mining contracts of the State of Washington and the individuals listed herein, and with the terms of that certain lease agreement dated February 19, 1957 between Grandview Mines and the above individuals, and with the terms of the Approval of Agreement for Consolidation of Mining Contracts by the Commissioner of Public Lands of the State of Washington, EXCEPT in those matters specifically stated in this agreement as to be performed by First Party hereto. The appropriate State of Washington CONTRACT FOR MINING form, a copy of the above mentioned Lease

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Agreement, and a copy of the Approval of Agreement for Consolidation of Mining Contracts, are attached hereto and by reference made a part hereof. Second Party acknowledges that it is aware of the terms of the individual CONTRACTS FOR MINING made out to each of the above named individuals, the terms and conditions of the above Lease Agreement, and the terms and conditions of the Approval of Agreement for Consolidation of Mining Contracts, and is aware of its obligations under this agreement to perform each and every term and condition of the three attached documents including the provisions for obtaining the permission of surface owners regarding use of the surface and the reservations of timber.

(2) (a) Second Party agrees to pay to First Party a royalty of 12½% of net smelter returns or of all monies received from the sale of all minerals or metals produced from the properties covered by each of the CONTRACTS FOR MINING listed herein.

(b) First Party agrees to pay promptly to the State of Washington an amount equal to the royalties, rentals and payments required of the individual contract holders above named by the State of Washington, and also to pay direct to said individuals an additional one per cent of net smelter returns or of all other receipts to each individual above having a mining contract, such payments to be based on the production and sale of ores mined from the respective individual's property.

(c) Second Party agrees to pay to First Party a minimum annual payment of $5,000.00 commencing with the first payment on January 1, 1958 and continuing with payments of $5,000.00 on each January 1 thereafter during the life of this agreement. When the 12½% earned royalties exceed the $5,000.00 minimum annual payment during any year, then additional payments of earned royalty will be made each month by Second Party to First Party commencing within fifteen (15) days after the end of the month during which the $5,000.00 minimum annual payment is exceeded and con-

tinuing with monthly payments of earned royalty by the 15th of each month after which said royalty has been earned.

(3) It is understood and agreed that said Lease Agreement between Grandview Mines and the individuals has been approved by the State of Washington and that any changed or subsequent agreement Grandview Mines obtains with the individuals is subject to State approval.

(4) Second Party agrees to expend at least $3,200.00 per year on the properties herein listed in such a manner as to satisfy all annual work requirements of the State of Washington and to furnish First Party with an affidavit of the performance of said work, which affidavit shall give the nature and extent thereof, for First Party to file with the State Commissioner of Public Lands. Such affidavit shall be furnished to First Party by Second Party not later than October 15th of each year.

(5) Second Party agrees: That so long as this Agreement remains in effect all operations will be in a good and workmanlike manner; to permit First Party, or its representatives, free access at all reasonable times to the properties listed herein, provided such access does not unduly interfere with the normal conduct of mining and auxiliary operations; promptly to pay the sums accruing to First Party under the various provisions of this Agreement and to submit statements of earned royalties in duplicate showing how such royalties were calculated and also an itemization of all costs of transportation and treatment as required by the State of Washington in its CONTRACT FOR MINING; to allow First Party and its representatives to inspect at reasonable office hours and without undue interference with the work of Second Party's accounting force, those portions of Second Party's books of account which show the details upon which royalties have been calculated and all other data pertaining to matters involved herein; promptly to pay in full all persons

performing work or services or supplying materials for Second Party's operation; never to permit any liens, charge or encumbrance from Second Party's operations to attach to any property belonging to First Party; to permit First Party to post and keep posted such notices of non-responsibility of First Party as may be by it deemed necessary; to defend any legal lien or claim arising from Second Party's operations under this Agreement against said First Party and to indemnify First Party for all losses and expenses of whatever nature arising from the existence or assertion of any such claim; to comply with all the laws of the State of Washington and the United States now or hereafter affecting mining and auxiliary operations, and with all labor laws, compensation statutes or other similar rules or requirements now or hereafter legally liable; promptly to pay all taxes of every kind assessed against Second Party's operation or the products therefrom, or against the property held under the CONTRACTS FOR MINING listed herein; and, in case of the termination of this lease for any reason whatsoever, peaceably to yield possession of the premises and to give to First Party a good and sufficient Release from all terms of this agreement.

(6) Second Party must furnish the chiefs of its exploration, development, and/or mining crews with instructions that when preparing reports and maps, sketches, profiles, or sections for transmittal to Second Party, one exact or carbon copy must at all times at the same time be prepared and in a reasonable time or upon request be delivered to First Party.

(7) If, at any time, Second Party shall break any of the conditions and covenants hereof, First Party may, if it so elects, declare this Agreement forfeited, and may retain as full compensation for the use of the premises all sums theretofore paid to First Party; provided at all times, however, that before any such forfeiture shall be declared, First Party shall first give Second Party notice in writing specifically directing

attention to the breach or breaches complained of; and Second Party shall have the period of thirty (30) days after date of receipt of such notice within which to remedy such breach, if any there shall be.

(8) At anytime Second Party may terminate this Agreement by giving a ninety (90) day's written notice of Second Party's intention to do so. If Second Party has not given such notice of abandonment within 90 days prior to November 14th of any year, then Second Party shall be obligated to perform the annual $3,200.00 work on the property as required by the State of Washington, or shall be liable to First Party for all costs incurred in the performance of such work as First Party finds it necessary to do to protect its interests and the interests of the holders of the CONTRACTS FOR MINING.

(9) In the event of litigation arising out of this Agreement, the prevailing party will be entitled to recover, in addition to all other costs of action, a reasonable sum, to be fixed by the Court, by way of attorney's fees.

(10) All notices provided herein shall be written and may be given by mailing same under registered cover and properly addressed at the following addresses:

To FIRST PARTY by sending to Grandview Mines, 310 Radio Central Building, Spokane 4, Washington; to SECOND PARTY by sending to Geo-Resource Corporation, 528 Hutton Building, Spokane 4, Washington. Either party may at any time give a new address to which to send these communications.

(11) This agreement is assignable only upon prior written approval of First Party. It is understood, however, that First Party will give its written approval if this agreement is assigned to an established company of good reputation acceptable by First Party.

(12) Unless otherwise terminated this agreement is

to remain in full force and effect for as long as the Lease Agreement between the above named individuals and Grandview Mines, and the individual CONTRACTS FOR MINING from the State of Washington, or any renewals thereof, and the Approval of Agreement for Consolidation of Mining Contracts by the State of Washington, all remain in effect.

IN WITNESS WHEREOF the parties hereto have set their hands and seals in triplicate, the day and year first above written, and each signed and acknowledged copy hereof shall have the force of an original.

GRANDVIEW MINES

BY _____
President

FIRST PARTY

ATTEST:

Mae C. Ford
Assistant Secretary

GEO-RESOURCE CORPORATION

BY William D. Weaver
President

SECOND PARTY

ATTEST:

Roland Weaver
Secretary

STATE OF WASHINGTON)
ss.
COUNTY OF SPOKANE)

On this 10th day of May, 1957, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared KARL W. JASPER and MAE C. FORD, to me known to be the President and Assistant Secretary, respectively, of Grandview Mines, a Corporation, and acknowledged the above and foregoing instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute the said instrument, as First Party, and that the seal affixed is the corporate seal of said corporation.

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.

Ila Cof
Notary Public in and for the State of Washington, residing at Spokane

STATE OF WASHINGTON)
ss.
COUNTY OF SPOKANE)

On this 10th day of May, 1957, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared WILLIAM D. WEAVER and RICHARD WEAVER, to me known to be the President and Secretary, respectively, of Geo-Resource Corporation, a Corporation, and acknowledged the above and foregoing instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute the said instrument, as Second Party, and that the seal affixed is the corporate seal of said corporation.

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.

Mable L. Davis
Notary Public in and for the State of Washington, residing at Spokane

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DEPARTMENT OF PUBLIC LANDS
OFFICE OF COMMISSIONER

CONTRACT FOR MINING

THIS INDENTURE, Made this 28th *day of* November, 194/56 *by and between the STATE OF WASHINGTON, party of the first part, and* ELLAMAE ANDERSON *of* 1204 West 18th Avenue, Spokane, *State of Washington, party of the second part:*

WITNESSETH. That the party of the first part, in consideration of the sum of Twenty and no/100 ($20.00) *Dollars, to it in hand paid by the party of the second part, being the first annual payment as provided for in chapter 255 of the Session Laws of 1927, the receipt of which is hereby acknowledged, the same being the first annual payment to be made hereunder, and in further consideration of the covenants and conditions herein contained, to be kept and performed by the party of the second part, does hereby contract, lease and demise to the party of the second part, for the term of* Twenty (20) *years from and after the* 14th *day of* November, *194*/56, *the following described land situate in the county of* Stevens, *State of Washington, viz.:*

E½SW¼, Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres, more or less, according to the government survey thereof.

The above described land has been leased by the State and the lessee herein may not actually enter upon the land until a waiver has been secured from the holder of Lease No. 34629. A legal method is provided in the event the same is refused.

which premises are leased to the party of the second part for the purpose of exploring for and mining and taking out and removing therefrom the ore therein contained, containing copper, silver, lead, gold and other valuable minerals (except coal), which is or which hereafter may be found in, on or under said land, together with the right to construct all buildings, make all excavations, openings, ditches, drains, railroads, wagon roads, concentrators, power plants, smelters and other improvements, upon said premises which are or may become necessary or suitable for the mining or removal of ore containing copper, lead, silver, gold or other valuable minerals (except coal) from said premises with the right, during the existence of this contract and lease, to ~~*cut and use the timber found on said premises for fuel and so far also as may be necessary for the construction of buildings required in the operation of any mine or mines hereby leased and also the timber necessary for drains, tramways and supports for such mine or mines*~~*: PROVIDED, That the party of the second part shall pay to the party of the first part, on the first day of each calendar month for the full term of this contract, a royalty, the amount of which shall be equivalent to* Four (4) % Four *of all moneys received from the sale of all minerals from said lands covered by this contract and lease after deducting therefrom the cost of transportation and treatment: And PROVIDED, further, That in addition to the royalty herein provided for, the contract holder and lessee shall pay to the party of the first part an annual rental of* $20.00 *said rental to be paid annually in advance.*

Monthly payments of the royalty hereinbefore mentioned are to be made by the party of the second part to the Commissioner of Public Lands of the State of Washington, and to be accompanied by a sworn statement representing in detail the output of the minerals extracted from said lands, and the sale or other disposition thereof, for the calendar month next preceding such payment. The party of the second part agrees that the Commissioner of Public Lands or any agent appointed by him for the purpose, shall have the right of access at any and all times to enter the mine and examine all shafts, tunnels and other mining works upon, in or under said lands, and to inspect the books, papers and accounts of the party of the second part.

The party of the second part hereby further agrees that all carriers employed for the taking or carrying or transportation of any and all ores, precious metals or minerals constituting the output of said mine or mines or operated upon said lands are hereby authorized and required, upon demand by said Commissioner of Public Lands or his authorized agent, to furnish said Commissioner or his agent with duplicates of all shipping bills, way bills, together with full and complete statements of all minerals, or precious metals of any and every character taken or carried from said lands.

It is further provided, that the party of the second part shall have the right at any time to terminate this agreement in so far as it requires the party of the second part to mine ore on said land or to pay a royalty therefor, by giving written notice to the party of the first part which shall be served by leaving the same with the Commissioner of Public Lands, who shall officially, in writing, acknowledge the receipt of said notice and the foregoing contract shall terminate sixty (60) days thereafter and all arrears and sums which may be due under the same up to the time of its termination as set forth in said notice shall be paid upon settlement and adjustment thereof.

The party of the first part further agrees that the party of the second part shall have the right under this agreement to contract with others to work such mine or mines or any part thereof or to sub-contract the same and the use of said land or any part thereof for the purpose of mining for ore with the same rights and privileges as are herein granted to the said party of the second part.

The party of the second part agrees that it will in each year during the life of this contract perform work or make improvements upon the premises hereinbefore described to an amount of not less than one hundred dollars ($100.00) for each twenty (20) acres included therein and will file with the Commissioner of Public Lands an affidavit of the performance of said work, which affidavit shall give the nature and extent thereof.

And it is further expressly agreed that if the party of the second part shall fail to perform said labor as hereinbefore provided that said contract shall then, at the option of the Commissioner of Public Lands, be forfeitable and the Commissioner of Public Lands shall thereupon, if he shall elect to forfeit this lease and contract, serve upon the party of the second part, or its assignee, if notice of such assignment has been given to the Commissioner of Public Lands, a notice that unless it performs such work within ninety (90) days after the giving of said notice, that this contract and lease shall thereupon become forfeited, terminated and at an end, such ninety (90) day period to commence from the date said notice is mailed by the Commissioner of Public Lands, all such notices to be given by registered mail and if the address of the holder of this contract is unknown then such notice shall be given by posting a copy thereof on said land at the point of any mining operations thereon, which notice shall thereupon be deemed sufficient.

It is also agreed by the party of the second part that a breach of any of the terms or conditions herein contained, or failure to perform, or a violation of any of the provisions of law, shall work an immediate forfeiture of this contract and all rights thereunder as well as all improvements made under authority thereof.

The hereinabove described lands are leased subject to all the provisions of chapter 109 of the Session Laws of 1911, relating to easements for rights of way.

IN TESTIMONY WHEREOF, The parties hereto have executed these presents in duplicate, setting their hands and seals this 5th 7th day of ~~December~~ January, A. D. 19~~56~~ 57

STATE OF WASHINGTON.

By John A. Cherry
Commissioner of Public Lands.

Witness Mae C. Hamilton

Witness Kelly Joseph

Ellamae Anderson

P. O. Address 1204 West 18th Avenue
Spokane, Washington

ORIGINAL S. F. No. 4194—6-21 SC. 19442.

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DATE	INITIALS	CODE

DEPARTMENT OF PUBLIC LANDS
OFFICE OF COMMISSIONER

CONTRACT FOR MINING

THIS INDENTURE, Made this 28th *day of* November, 194/56, *by and between the STATE OF WASHINGTON, party of the first part, and* RUBY K. ANDERSON *of* 2308 South Jefferson, Spokane, *State of Washington, party of the second part:*

WITNESSETH, That the party of the first part, in consideration of the sum of Twenty and no/100 ($20.00) *Dollars, to it in hand paid by the party of the second part, being the first annual payment as provided for in chapter 255 of the Session Laws of 1927, the receipt of which is hereby acknowledged, the same being the first annual payment to be made hereunder, and in further consideration of the covenants and conditions herein contained, to be kept and performed by the party of the second part, does hereby contract, lease and demise to the party of the second part, for the term of* Twenty (20) *years from and after the* 14th *day of* November, 194/56, *the following described land situate in the county of* Stevens, *State of Washington, viz.:*

W½SW¼, Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres, more or less, according to the government survey thereof.

The above described land has been leased by the State and the lessee herein may not actually enter upon the land until a waiver has been secured from the holder of Lease No. 34629. A legal method is provided in the event the same is refused.

which premises are leased to the party of the second part for the purpose of exploring for and mining and taking out and removing therefrom the ore therein contained, containing copper, silver, lead, gold and other valuable minerals (except coal), which is or which hereafter may be found in, on or under said land, together with the right to construct all buildings, make all excavations, openings, ditches, drains, railroads, wagon roads, concentrators, power plants, smelters and other improvements, upon said premises which are or may become necessary or suitable for the mining or removal of ore containing copper, lead, silver, gold or other valuable minerals (except coal) from said premises with the right, during the existence of this contract and lease, to ~~*cut and use the timber found on said premises for fuel and so far also as may be necessary, for the construction of buildings required in the operation of any mine or mines hereby leased and also the timber necessary for drains, tramways and supports for such mine or mines:*~~ *PROVIDED, That the party of the second part shall pay to the party of the first part, on the first day of each calendar month for the full term of this contract, a royalty, the amount of which shall be equivalent to* Four (4)% *of all moneys received from the sale of all minerals from said lands covered by this contract and lease after deducting therefrom the cost of transportation and treatment: And PROVIDED, further, That in addition to the royalty herein provided for, the contract holder and lessee shall pay to the party of the first part an annual rental of* $20.00 *said rental to be paid annually in advance.*

Monthly payments of the royalty hereinbefore mentioned are to be made by the party of the second part to the Commissioner of Public Lands of the State of Washington, and to be accompanied by a sworn statement representing in detail the output of the minerals extracted from said lands, and the sale or other disposition thereof, for the calendar month next preceding such payment. The party of the second part agrees that the Commissioner of Public Lands or any agent appointed by him for the purpose, shall have the right of access at any and all times to enter the mine and examine all shafts, tunnels and other mining works upon, in or under said lands, and to inspect the books, papers and accounts of the party of the second part.

The party of the second part hereby further agrees that all carriers employed for the taking or carrying or transportation of any and all ores, precious metals or minerals constituting the output of said mine or mines or operated upon said lands are hereby authorized and required, upon demand by said Commissioner of Public Lands or his authorized agent, to furnish said Commissioner or his agent with duplicates of all shipping bills, way bills, together with full and complete statements of all minerals, or precious metals of any and every character taken or carried from said lands.

It is further provided, that the party of the second part shall have the right at any time to terminate this agreement in so far as it requires the party of the second part to mine ore on said land or to pay a royalty therefor, by giving written notice to the party of the first part which shall be served by leaving the same with the Commissioner of Public Lands, who shall officially, in writing, acknowledge the receipt of said notice and the foregoing contract shall terminate sixty (60) days thereafter and all arrears and sums which may be due under the same up to the time of its termination as set forth in said notice shall be paid upon settlement and adjustment thereof.

The party of the first part further agrees that the party of the second part shall have the right under this agreement to contract with others to work such mine or mines or any part thereof or to sub-contract the same and the use of said land or any part thereof for the purpose of mining for ore with the same rights and privileges as are herein granted to the said party of the second part.

The party of the second part agrees that it will in each year during the life of this contract perform work or make improvements upon the premises hereinbefore described to an amount of not less than one hundred dollars ($100.00) for each twenty (20) acres included therein and will file with the Commissioner of Public Lands an affidavit of the performance of said work, which affidavit shall give the nature and extent thereof.

And it is further expressly agreed that if the party of the second part shall fail to perform said labor as hereinbefore provided that said contract shall then, at the option of the Commissioner of Public Lands, be forfeitable and the Commissioner of Public Lands shall thereupon, if he shall elect to forfeit this lease and contract, serve upon the party of the second part, or its assignee, if notice of such assignment has been given to the Commissioner of Public Lands, a notice that unless it performs such work within ninety (90) days after the giving of said notice, that this contract and lease shall thereupon become forfeited, terminated and at an end, such ninety (90) day period to commence from the date said notice is mailed by the Commissioner of Public Lands, all such notices to be given by registered mail and if the address of the holder of this contract is unknown then such notice shall be given by posting a copy thereof on said land at the point of any mining operations thereon, which notice shall thereupon be deemed sufficient.

It is also agreed by the party of the second part that a breach of any of the terms or conditions herein contained, or failure to perform, or a violation of any of the provisions of law, shall work an immediate forfeiture of this contract and all rights thereunder as well as all improvements made under authority thereof.

The hereinabove described lands are leased subject to all the provisions of chapter 109 of the Session Laws of 1911, relating to easements for rights of way.

IN TESTIMONY WHEREOF, The parties hereto have executed these presents in duplicate, setting their hands and seals this 5th 7th *day of* December January 57, *A. D. 19*~~56~~

STATE OF WASHINGTON.

By Otto Case

Commissioner of Public Lands.

Witness Mae C. Hamilton

Witness Kelly Joseph

Ruby K. Anderson

P. O. Address 2308 South Jefferson

Spokane, Washington

ORIGINAL S. F. No. 4194—6-21-40—5C. 19442.

DEPARTMENT OF PUBLIC LANDS
OFFICE OF COMMISSIONER

CONTRACT FOR MINING

THIS INDENTURE, Made this 28th *day of* November *19*56, *by and between the STATE OF WASHINGTON, party of the first part, and* AMY SATTERSTROM *of* 820 East 35th, Spokane, *State of Washington, party of the second part:*

WITNESSETH, That the party of the first part, in consideration of the sum of Twenty and no/100 ($20.00) *Dollars, to it in hand paid by the party of the second part, being the first annual payment as provided for in chapter 255 of the Session Laws of 1927, the receipt of which is hereby acknowledged, the same being the first annual payment to be made hereunder, and in further consideration of the covenants and conditions herein contained, to be kept and performed by the party of the second part, does hereby contract, lease and demise to the party of the second part, for the term of* Twenty (20) *years from and after the* 14th *day of* November, *19*56, *the following described land situate in the county of* Stevens, *State of Washington, viz.:*

E½SE¼, Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres, more or less, according to the government survey thereof.

The above described land has been leased by the State and the lessee herein may not actually enter upon the land until a waiver has been secured from the holder of Lease No. 34629. A legal method is provided in the event the same is refused.

which premises are leased to the party of the second part for the purpose of exploring for and mining and taking out and removing therefrom the ore therein contained, containing copper, silver, lead, gold and other valuable minerals (except coal), which is or which hereafter may be found in, on or under said land, together with the right to construct all buildings, make all excavations, openings, ditches, drains, railroads, wagon roads, concentrators, power plants, smelters and other improvements, upon said premises which are or may become necessary or suitable for the mining or removal of ore containing copper, lead, silver, gold or other valuable minerals (except coal) from said premises with the right, during the existence of this contract and lease, to ~~cut and use the timber found on said premises for fuel and so far~~ also as ~~may be necessary, for the construction of buildings required in the operation of any mine or mines hereby leased and also the timber necessary for drains, tramways and supports for such mine or mines~~: PROVIDED, That the party of the second part shall pay to the party of the first part, on the first day of each calendar month for the full term of this contract, a royalty, the amount of which shall be equivalent to Four (4)% *of all moneys received from the sale of all minerals from said lands covered by this contract and lease after deducting therefrom the cost of transportation and treatment: And PROVIDED, further, That in addition to the royalty herein provided for, the contract holder and lessee shall pay to the party of the first part an annual rental of* $20.00 *said rental to be paid annually in advance.*

Monthly payments of the royalty hereinbefore mentioned are to be made by the party of the second part to the Commissioner of Public Lands of the State of Washington, and to be accompanied by a sworn statement representing in detail the output of the minerals extracted from said lands, and the sale or other disposition thereof, for the calendar month next preceding such payment. The party of the second part agrees that the Commissioner of Public Lands or any agent appointed by him for the purpose, shall have the right of access at any and all times to enter the mine and examine all shafts, tunnels and other mining works upon, in or under said lands, and to inspect the books, papers and accounts of the party of the second part.

The party of the second part hereby further agrees that all carriers employed for the taking or carrying or transportation of any and all ores, precious metals or minerals constituting the output of said mine or mines or operated upon said lands are hereby authorized and required, upon demand by said Commissioner of Public Lands or his authorized agent, to furnish said Commissioner or his agent with duplicates of all shipping bills, way bills, together with full and complete statements of all minerals, or precious metals of any and every character taken or carried from said lands.

It is further provided, that the party of the second part shall have the right at any time to terminate this agreement in so far as it requires the party of the second part to mine ore on said land or to pay a royalty therefor, by giving written notice to the party of the first part which shall be served by leaving the same with the Commissioner of Public Lands, who shall officially, in writing, acknowledge the receipt of said notice and the foregoing contract shall terminate sixty (60) days thereafter and all arrears and sums which may be due under the same up to the time of its termination as set forth in said notice shall be paid upon settlement and adjustment thereof.

The party of the first part further agrees that the party of the second part shall have the right under this agreement to contract with others to work such mine or mines or any part thereof or to sub-contract the same and the use of said land or any part thereof for the purpose of mining for ore with the same rights and privileges as are herein granted to the said party of the second part.

The party of the second part agrees that it will in each year during the life of this contract perform work or make improvements upon the premises hereinbefore described to an amount of not less than one hundred dollars ($100.00) for each twenty (20) acres included therein and will file with the Commissioner of Public Lands an affidavit of the performance of said work, which affidavit shall give the nature and extent thereof.

And it is further expressly agreed that if the party of the second part shall fail to perform said labor as hereinbefore provided that said contract shall then, at the option of the Commissioner of Public Lands, be forfeitable and the Commissioner of Public Lands shall thereupon, if he shall elect to forfeit this lease and contract, serve upon the party of the second part, or its assignee, if notice of such assignment has been given to the Commissioner of Public Lands, a notice that unless it performs such work within ninety (90) days after the giving of said notice, that this contract and lease shall thereupon become forfeited, terminated and at an end, such ninety (90) day period to commence from the date said notice is mailed by the Commissioner of Public Lands, all such notices to be given by registered mail and if the address of the holder of this contract is unknown then such notice shall be given by posting a copy thereof on said land at the point of any mining operations thereon, which notice shall thereupon be deemed sufficient.

It is also agreed by the party of the second part that a breach of any of the terms or conditions herein contained, or failure to perform, or a violation of any of the provisions of law, shall work an immediate forfeiture of this contract and all rights thereunder as well as all improvements made under authority thereof.

The hereinabove described lands are leased subject to all the provisions of chapter 109 of the Session Laws of 1911, relating to easements for rights of way.

IN TESTIMONY WHEREOF, The parties hereto have executed these presents in duplicate, setting their hands and seals this 5th *day of* ~~December~~ January, *A. D. 19*~~56~~ 57

STATE OF WASHINGTON.

By [signature]
Commissioner of Public Lands.

Witness Eskil Anderson

Witness Mae C. Hamilton

Amy Satterstrom

P. O. Address 820 East 35th

Spokane, Washington

ORIGINAL S. F. No. 4194—6-21-40—5C. 19442.

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DATE	INITIALS	CODE

DEPARTMENT OF PUBLIC LANDS
OFFICE OF COMMISSIONER

CONTRACT FOR MINING

THIS INDENTURE, Made this 28th *day of* November, 19~~4~~56, *by and between the STATE OF WASHINGTON, party of the first part, and* MAE C. HAMILTON *of* 1416 East 9th Avenue, Spokane, *State of Washington, party of the second part:*

WITNESSETH, That the party of the first part, in consideration of the sum of Twenty and no/100 ($20.00) *Dollars, to it in hand paid by the party of the second part, being the first annual payment as provided for in chapter 255 of the Session Laws of 1927, the receipt of which is hereby acknowledged, the same being the first annual payment to be made hereunder, and in further consideration of the covenants and conditions herein contained, to be kept and performed by the party of the second part, does hereby contract, lease and demise to the party of the second part, for the term of* Twenty (20) *years from and after the* 14th *day of* November, 19~~4~~56, *the following described land situate in the county of* Stevens, *State of Washington, viz.:*

W½SE¼, Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres, more or less, according to the government survey thereof.

The above described land has been leased by the State and the lessee herein may not actually enter upon the land until a waiver has been secured from the holder of Lease No. 34629. A legal method is provided in the event the same is refused.

which premises are leased to the party of the second part for the purpose of exploring for and mining and taking out and removing therefrom the ore therein contained, containing copper, silver, lead, gold and other valuable minerals (except coal), which is or which hereafter may be found in, on or under said land, together with the right to construct all buildings, make all excavations, openings, ditches, drains, railroads, wagon roads, concentrators, power plants, smelters and other improvements, upon said premises which are or may become necessary or suitable for the mining or removal of ore containing copper, lead, silver, gold or other valuable minerals (except coal) from said premises with the right, during the existence of this contract and lease, ~~*to cut and use the timber found on said premises for fuel and so far also as may be necessary, for the construction of buildings required in the operation of any mine or mines hereby leased and also the timber necessary for drains, tramways and supports for such mine or mines:*~~ *PROVIDED, That the party of the second part shall pay to the party of the first part, on the first day of each calendar month for the full term of this contract, a royalty, the amount of which shall be equivalent to* Four (4)% *of all moneys received from the sale of all minerals from said lands covered by this contract and lease after deducting therefrom the cost of transportation and treatment: And PROVIDED, further, That in addition to the royalty herein provided for, the contract holder and lessee shall pay to the party of the first part an annual rental of* $20.00 *said rental to be paid annually in advance.*

Monthly payments of the royalty hereinbefore mentioned are to be made by the party of the second part to the Commissioner of Public Lands of the State of Washington, and to be accompanied by a sworn statement representing in detail the output of the minerals extracted from said lands, and the sale or other disposition thereof, for the calendar month next preceding such payment. The party of the second part agrees that the Commissioner of Public Lands or any agent appointed by him for the purpose, shall have the right of access at any and all times to enter the mine and examine all shafts, tunnels and other mining works upon, in or under said lands, and to inspect the books, papers and accounts of the party of the second part.

The party of the second part hereby further agrees that all carriers employed for the taking or carrying or transportation of any and all ores, precious metals or minerals constituting the output of said mine or mines or operated upon said lands are hereby authorized and required, upon demand by said Commissioner of Public Lands or his authorized agent, to furnish said Commissioner or his agent with duplicates of all shipping bills, way bills, together with full and complete statements of all minerals, or precious metals of any and every character taken or carried from said lands.

It is further provided, that the party of the second part shall have the right at any time to terminate this agreement in so far as it requires the party of the second part to mine ore on said land or to pay a royalty therefor, by giving written notice to the party of the first part which shall be served by leaving the same with the Commissioner of Public Lands, who shall officially, in writing, acknowledge the receipt of said notice and the foregoing contract shall terminate sixty (60) days thereafter and all arrears and sums which may be due under the same up to the time of its termination as set forth in said notice shall be paid upon settlement and adjustment thereof.

The party of the first part further agrees that the party of the second part shall have the right under this agreement to contract with others to work such mine or mines or any part thereof or to sub-contract the same and the use of said land or any part thereof for the purpose of mining for ore with the same rights and privileges as are herein granted to the said party of the second part.

The party of the second part agrees that it will in each year during the life of this contract perform work or make improvements upon the premises hereinbefore described to an amount of not less than one hundred dollars ($100.00) for each twenty (20) acres included therein and will file with the Commissioner of Public Lands an affidavit of the performance of said work, which affidavit shall give the nature and extent thereof.

And it is further expressly agreed that if the party of the second part shall fail to perform said labor as hereinbefore provided that said contract shall then, at the option of the Commissioner of Public Lands, be forfeitable and the Commissioner of Public Lands shall thereupon, if he shall elect to forfeit this lease and contract, serve upon the party of the second part, or its assignee, if notice of such assignment has been given to the Commissioner of Public Lands, a notice that unless it performs such work within ninety (90) days after the giving of said notice, that this contract and lease shall thereupon become forfeited, terminated and at an end, such ninety (90) day period to commence from the date said notice is mailed by the Commissioner of Public Lands, all such notices to be given by registered mail and if the address of the holder of this contract is unknown then such notice shall be given by posting a copy thereof on said land at the point of any mining operations thereon, which notice shall thereupon be deemed sufficient.

It is also agreed by the party of the second part that a breach of any of the terms or conditions herein contained, or failure to perform, or a violation of any of the provisions of law, shall work an immediate forfeiture of this contract and all rights thereunder as well as all improvements made under authority thereof.

The hereinabove described lands are leased subject to all the provisions of chapter 109 of the Session Laws of 1911, relating to easements for rights of way.

IN TESTIMONY WHEREOF, The parties hereto have executed these presents in duplicate, setting their hands and seals this ~~5th~~ 7th *day of* ~~December~~ January, *A. D. 19*~~56~~ 57

STATE OF WASHINGTON.

By Otto A. Case
Commissioner of Public Lands.

Witness Eskil Anderson

Witness Karl W. Jaeger

Mae C. Hamilton

P. O. Address 1416 East 9th Avenue
Spokane, Washington

ORIGINAL S. F. No. 4194—6-21-40—5C. 19442.

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DATE	INITIALS	CODE

DEPARTMENT OF PUBLIC LANDS
OFFICE OF COMMISSIONER

CONTRACT FOR MINING

THIS INDENTURE, Made this 28th *day of* November, 1956, *by and between the STATE OF WASHINGTON, party of the first part, and* JOHN H. ROBERTS *of* 120 Rockwood, Spokane, *State of Washington, party of the second part:*

WITNESSETH, That the party of the first part, in consideration of the sum of Twenty and no/100 ($20.00) *Dollars, to it in hand paid by the party of the second part, being the first annual payment as provided for in chapter 255 of the Session Laws of 1927, the receipt of which is hereby acknowledged, the same being the first annual payment to be made hereunder, and in further consideration of the covenants and conditions herein contained, to be kept and performed by the party of the second part, does hereby contract, lease and demise to the party of the second part, for the term of* Twenty (20) *years from and after the* 14th *day of* November, 1956, *the following described land situate in the county of* Stevens, *State of Washington, viz.:*

W½NW¼, Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres, more or less, according to the government survey thereof.

The above described land has been leased by the State and the lessee herein may not actually enter upon the land until a waiver has been secured from the holder of Lease No. 34629. A legal method is provided in the event the same is refused.

which premises are leased to the party of the second part for the purpose of exploring for and mining and taking out and removing therefrom the ore therein contained, containing copper, silver, lead, gold and other valuable minerals (except coal), which is or which hereafter may be found in, on or under said land, together with the right to construct all buildings, make all excavations, openings, ditches, drains, railroads, wagon roads, concentrators, power plants, smelters and other improvements, upon said premises which are or may become necessary or suitable for the mining or removal of ore containing copper, lead, silver, gold or other valuable minerals (except coal) from said premises with the right, during the existence of this contract and lease, ~~*to cut and use the timber found on said premises for fuel and so far also as may be necessary, for the construction of buildings required in the operation of any mine or mines hereby leased and also the timber necessary for drains, tramways and supports for such mine or mines.*~~ *PROVIDED, That the party of the second part shall pay to the party of the first part, on the first day of each calendar month for the full term of this contract, a royalty, the amount of which shall be equivalent to* Four (4) % *of all moneys received from the sale of all minerals from said lands covered by this contract and lease after deducting therefrom the cost of transportation and treatment: And PROVIDED, further, That in addition to the royalty herein provided for, the contract holder and lessee shall pay to the party of the first part an annual rental of* $20.00 *said rental to be paid annually in advance.*

Monthly payments of the royalty hereinbefore mentioned are to be made by the party of the second part to the Commissioner of Public Lands of the State of Washington, and to be accompanied by a sworn statement representing in detail the output of the minerals extracted from said lands, and the sale or other disposition thereof, for the calendar month next preceding such payment. The party of the second part agrees that the Commissioner of Public Lands or any agent appointed by him for the purpose, shall have the right of access at any and all times to enter the mine and examine all shafts, tunnels and other mining works upon, in or under said lands, and to inspect the books, papers and accounts of the party of the second part.

The party of the second part hereby further agrees that all carriers employed for the taking or carrying or transportation of any and all ores, precious metals or minerals constituting the output of said mine or mines or operated upon said lands are hereby authorized and required, upon demand by said Commissioner of Public Lands or his authorized agent, to furnish said Commissioner or his agent with duplicates of all shipping bills, way bills, together with full and complete statements of all minerals, or precious metals of any and every character taken or carried from said lands.

It is further provided, that the party of the second part shall have the right at any time to terminate this agreement in so far as it requires the party of the second part to mine ore on said land or to pay a royalty therefor, by giving written notice to the party of the first part which shall be served by leaving the same with the Commissioner of Public Lands, who shall officially, in writing, acknowledge the receipt of said notice and the foregoing contract shall terminate sixty (60) days thereafter and all arrears and sums which may be due under the same up to the time of its termination as set forth in said notice shall be paid upon settlement and adjustment thereof.

The party of the first part further agrees that the party of the second part shall have the right under this agreement to contract with others to work such mine or mines or any part thereof or to sub-contract the same and the use of said land or any part thereof for the purpose of mining for ore with the same rights and privileges as are herein granted to the said party of the second part.

The party of the second part agrees that it will in each year during the life of this contract perform work or make improvements upon the premises hereinbefore described to an amount of not less than one hundred dollars ($100.00) for each twenty (20) acres included therein and will file with the Commissioner of Public Lands an affidavit of the performance of said work, which affidavit shall give the nature and extent thereof.

And it is further expressly agreed that if the party of the second part shall fail to perform said labor as hereinbefore provided that said contract shall then, at the option of the Commissioner of Public Lands, be forfeitable and the Commissioner of Public Lands shall thereupon, if he shall elect to forfeit this lease and contract, serve upon the party of the second part, or its assignee, if notice of such assignment has been given to the Commissioner of Public Lands, a notice that unless it performs such work within ninety (90) days after the giving of said notice, that this contract and lease shall thereupon become forfeited, terminated and at an end, such ninety (90) day period to commence from the date said notice is mailed by the Commissioner of Public Lands, all such notices to be given by registered mail and if the address of the holder of this contract is unknown then such notice shall be given by posting a copy thereof on said land at the point of any mining operations thereon, which notice shall thereupon be deemed sufficient.

It is also agreed by the party of the second part that a breach of any of the terms or conditions herein contained, or failure to perform, or a violation of any of the provisions of law, shall work an immediate forfeiture of this contract and all rights thereunder as well as all improvements made under authority thereof.

The hereinabove described lands are leased subject to all the provisions of chapter 109 of the Session Laws of 1911, relating to easements for rights of way.

IN TESTIMONY WHEREOF, The parties hereto have executed these presents in duplicate, setting their hands and seals this 4th 7th *day of* December January *A. D. 19*~~56~~ 57

STATE OF WASHINGTON.

By Otto Case
Commissioner of Public Lands.

Witness Esther Anderson

Witness Mae C. Hamilton

John H. Roberts

P. O. Address 120 Rockwood

Spokane, Washington

DEPARTMENT OF PUBLIC LANDS
OFFICE OF COMMISSIONER

CONTRACT FOR MINING

THIS INDENTURE, Made this 28th *day of* November, 19/56, *by and between the STATE OF WASHINGTON, party of the first part, and* E.O. DRESSEL *of* Metaline Falls, *State of Washington, party of the second part:*

WITNESSETH, That the party of the first part, in consideration of the sum of Twenty and no/100 ($20.00) *Dollars, to it in hand paid by the party of the second part, being the first annual payment as provided for in chapter 255 of the Session Laws of 1927, the receipt of which is hereby acknowledged, the same being the first annual payment to be made hereunder, and in further consideration of the covenants and conditions herein contained, to be kept and performed by the party of the second part, does hereby contract, lease and demise to the party of the second part, for the term of* Twenty (20) *years from and after the* 14th *day of* November, 19/56, *the following described land situate in the county of* Stevens, *State of Washington, viz.:*

E½NW¼, Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres, more or less, according to the government survey thereof.

The above described land has been leased by the State and the lessee herein may not actually enter upon the land until a waiver has been secured from the holder of Lease No. 34629. A legal method is provided in the event the same is refused.

which premises are leased to the party of the second part for the purpose of exploring for and mining and taking out and removing therefrom the ore therein contained, containing copper, silver, lead, gold and other valuable minerals (except coal), which is or which hereafter may be found in, on or under said land, together with the right to construct all buildings, make all excavations, openings, ditches, drains, railroads, wagon roads, concentrators, power plants, smelters and other improvements, upon said premises which are or may become necessary or suitable for the mining or removal of ore containing copper, lead, silver, gold or other valuable minerals (except coal) from said premises with the right, during the existence of this contract and lease, ~~*to cut and use the timber found on said premises for fuel and so far also as may be necessary, for the construction of buildings required in the operation of any mine or mines hereby leased and also the timber necessary for drains, tramways and supports for such mine or mines:*~~ *PROVIDED, That the party of the second part shall pay to the party of the first part, on the first day of each calendar month for the full term of this contract, a royalty, the amount of which shall be equivalent to* Four (4)% *of all moneys received from the sale of all minerals from said lands covered by this contract and lease after deducting therefrom the cost of transportation and treatment: And PROVIDED, further, That in addition to the royalty herein provided for, the contract holder and lessee shall pay to the party of the first part an annual rental of* $20.00 *said rental to be paid annually in advance.*

Monthly payments of the royalty hereinbefore mentioned are to be made by the party of the second part to the Commissioner of Public Lands of the State of Washington, and to be accompanied by a sworn statement representing in detail the output of the minerals extracted from said lands, and the sale or other disposition thereof, for the calendar month next preceding such payment. The party of the second part agrees that the Commissioner of Public Lands or any agent appointed by him for the purpose, shall have the right of access at any and all times to enter the mine and examine all shafts, tunnels and other mining works upon, in or under said lands, and to inspect the books, papers and accounts of the party of the second part.

The party of the second part hereby further agrees that all carriers employed for the taking or carrying or transportation of any and all ores, precious metals or minerals constituting the output of said mine or mines or operated upon said lands are hereby authorized and required, upon demand by said Commissioner of Public Lands or his authorized agent, to furnish said Commissioner or his agent with duplicates of all shipping bills, way bills, together with full and complete statements of all minerals, or precious metals of any and every character taken or carried from said lands.

It is further provided, that the party of the second part shall have the right at any time to terminate this agreement in so far as it requires the party of the second part to mine ore on said land or to pay a royalty therefor, by giving written notice to the party of the first part which shall be served by leaving the same with the Commissioner of Public Lands, who shall officially, in writing, acknowledge the receipt of said notice and the foregoing contract shall terminate sixty (60) days thereafter and all arrears and sums which may be due under the same up to the time of its termination as set forth in said notice shall be paid upon settlement and adjustment thereof.

The party of the first part further agrees that the party of the second part shall have the right under this agreement to contract with others to work such mine or mines or any part thereof or to sub-contract the same and the use of said land or any part thereof for the purpose of mining for ore with the same rights and privileges as are herein granted to the said party of the second part.

The party of the second part agrees that it will in each year during the life of this contract perform work or make improvements upon the premises hereinbefore described to an amount of not less than one hundred dollars ($100.00) for each twenty (20) acres included therein and will file with the Commissioner of Public Lands an affidavit of the performance of said work, which affidavit shall give the nature and extent thereof.

And it is further expressly agreed that if the party of the second part shall fail to perform said labor as hereinbefore provided that said contract shall then, at the option of the Commissioner of Public Lands, be forfeitable and the Commissioner of Public Lands shall thereupon, if he shall elect to forfeit this lease and contract, serve upon the party of the second part, or its assignee, if notice of such assignment has been given to the Commissioner of Public Lands, a notice that unless it performs such work within ninety (90) days after the giving of said notice, that this contract and lease shall thereupon become forfeited, terminated and at an end, such ninety (90) day period to commence from the date said notice is mailed by the Commissioner of Public Lands, all such notices to be given by registered mail and if the address of the holder of this contract is unknown then such notice shall be given by posting a copy thereof on said land at the point of any mining operations thereon, which notice shall thereupon be deemed sufficient.

It is also agreed by the party of the second part that a breach of any of the terms or conditions herein contained, or failure to perform, or a violation of any of the provisions of law, shall work an immediate forfeiture of this contract and all rights thereunder as well as all improvements made under authority thereof.

The hereinabove described lands are leased subject to all the provisions of chapter 109 of the Session Laws of 1911, relating to easements for rights of way.

IN TESTIMONY WHEREOF, The parties hereto have executed these presents in duplicate, setting their hands and seals this 5th *day of* Dec, *A. D. 194*56

STATE OF WASHINGTON.

By Otto Case
Commissioner of Public Lands.

Witness Lillian M. Bailey

Witness R. B. [illegible]

Ed Dressel

P. O. Address Metaline Falls, Washington

ORIGINAL S. F. No. 4194—6-21 SC. 19442.

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 10 1957

DATE	INITIALS	CODE

DEPARTMENT OF PUBLIC LANDS
OFFICE OF COMMISSIONER

CONTRACT FOR MINING

THIS INDENTURE, Made this 28th *day of* November, 19~~4~~56, *by and between the STATE OF WASHINGTON, party of the first part, and* PAUL T. HOETZEL *of* 1116 Club Court, Spokane, *State of Washington, party of the second part:*

WITNESSETH, That the party of the first part, in consideration of the sum of Twenty and no/100 ($20.00) *Dollars, to it in hand paid by the party of the second part, being the first annual payment as provided for in chapter 255 of the Session Laws of 1927, the receipt of which is hereby acknowledged, the same being the first annual payment to be made hereunder, and in further consideration of the covenants and conditions herein contained, to be kept and performed by the party of the second part, does hereby contract, lease and demise to the party of the second part, for the term of* Twenty (20) *years from and after the* 14th *day of* November, 19~~4~~56, *the following described land situate in the county of* Stevens, *State of Washington, viz.:*

E½NE¼, Section 10, Township 29 North, Range 38 East, W.M., containing 80 acres, more or less, according to the government survey thereof.

The above described land has been leased by the State and the lessee herein may not actually enter upon the land until a waiver has been secured from the holder of Lease No. 34629. A legal method is provided in the event the same is refused.

which premises are leased to the party of the second part for the purpose of exploring for and mining and taking out and removing therefrom the ore therein contained, containing copper, silver, lead, gold and other valuable minerals (except coal), which is or which hereafter may be found in, on or under said land, together with the right to construct all buildings, make all excavations, openings, ditches, drains, railroads, wagon roads, concentrators, power plants, smelters and other improvements, upon said premises which are or may become necessary or suitable for the mining or removal of ore containing copper, lead, silver, gold or other valuable minerals (except coal) from said premises with the right, during the existence of this contract and lease, to cut and use ~~the timber found on said premises for fuel and so far also as may be necessary, for the construction of buildings required in the operation of any mine or mines hereby leased and also the timber necessary for drains, tramways and supports for such mine or mines~~: PROVIDED, That the party of the second part shall pay to the party of the first part, on the first day of each calendar month for the full term of this contract, a royalty, the amount of which shall be equivalent to Four (4) % *of all moneys received from the sale of all minerals from said lands covered by this contract and lease after deducting therefrom the cost of transportation and treatment: And PROVIDED, further, That in addition to the royalty herein provided for, the contract holder and lessee shall pay to the party of the first part an annual rental of* $20.00 *said rental to be paid annually in advance.*

Monthly payments of the royalty hereinbefore mentioned are to be made by the party of the second part to the Commissioner of Public Lands of the State of Washington, and to be accompanied by a sworn statement representing in detail the output of the minerals extracted from said lands, and the sale or other disposition thereof, for the calendar month next preceding such payment. The party of the second part agrees that the Commissioner of Public Lands or any agent appointed by him for the purpose, shall have the right of access at any and all times to enter the mine and examine all shafts, tunnels and other mining works upon, in or under said lands, and to inspect the books, papers and accounts of the party of the second part.

16

The party of the second part hereby further agrees that all carriers employed for the taking or carrying or transportation of any and all ores, precious metals or minerals constituting the output of said mine or mines or operated upon said lands are hereby authorized and required, upon demand by said Commissioner of Public Lands or his authorized agent, to furnish said Commissioner or his agent with duplicates of all shipping bills, way bills, together with full and complete statements of all minerals, or precious metals of any and every character taken or carried from said lands.

It is further provided, that the party of the second part shall have the right at any time to terminate this agreement in so far as it requires the party of the second part to mine ore on said land or to pay a royalty therefor, by giving written notice to the party of the first part which shall be served by leaving the same with the Commissioner of Public Lands, who shall officially, in writing, acknowledge the receipt of said notice and the foregoing contract shall terminate sixty (60) days thereafter and all arrears and sums which may be due under the same up to the time of its termination as set forth in said notice shall be paid upon settlement and adjustment thereof.

The party of the first part further agrees that the party of the second part shall have the right under this agreement to contract with others to work such mine or mines or any part thereof or to sub-contract the same and the use of said land or any part thereof for the purpose of mining for ore with the same rights and privileges as are herein granted to the said party of the second part.

The party of the second part agrees that it will in each year during the life of this contract perform work or make improvements upon the premises hereinbefore described to an amount of not less than one hundred dollars ($100.00) for each twenty (20) acres included therein and will file with the Commissioner of Public Lands an affidavit of the performance of said work, which affidavit shall give the nature and extent thereof.

And it is further expressly agreed that if the party of the second part shall fail to perform said labor as hereinbefore provided that said contract shall then, at the option of the Commissioner of Public Lands, be forfeitable and the Commissioner of Public Lands shall thereupon, if he shall elect to forfeit this lease and contract, serve upon the party of the second part, or its assignee, if notice of such assignment has been given to the Commissioner of Public Lands, a notice that unless it performs such work within ninety (90) days after the giving of said notice, that this contract and lease shall thereupon become forfeited, terminated and at an end, such ninety (90) day period to commence from the date said notice is mailed by the Commissioner of Public Lands, all such notices to be given by registered mail and if the address of the holder of this contract is unknown then such notice shall be given by posting a copy thereof on said land at the point of any mining operations thereon, which notice shall thereupon be deemed sufficient.

It is also agreed by the party of the second part that a breach of any of the terms or conditions herein contained, or failure to perform, or a violation of any of the provisions of law, shall work an immediate forfeiture of this contract and all rights thereunder as well as all improvements made under authority thereof.

The hereinabove described lands are leased subject to all the provisions of chapter 109 of the Session Laws of 1911, relating to easements for rights of way.

IN TESTIMONY WHEREOF, The parties hereto have executed these presents in duplicate, setting their hands and seals this 5th *day of* ~~December~~ January, *A. D. 19*~~56~~ 57

STATE OF WASHINGTON.

By [signature]
Commissioner of Public Lands.

Witness Skill Anderson

Witness Mae C. Hamilton

[signature]

P. O. Address 1116 Club Court

Spokane, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 7 1957

DATE	INITIALS	CODE
6/7	JWR	220
"	~~[illegible]~~	700

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

Date June 5, 1957

DMEA Docket No. 4671
DMEA Contract No.
Commodity Uranium
Name of applicant Geo-Resource Corp.
Name of property Blue Mountain Property
Location of property Stevens County, Washington
Estimated cost of project $81,650.00

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: James Paone, Bureau of Mines Member
Uranium Commodity Committee

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

1. Date of subject document: 5/15/57. 2. Date received by reviewer: 6/4/57

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

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

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

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

7. Explain items marked yes above:

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

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

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

IN REPLY REFER TO:

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

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RECEIVED JUN 6 1957

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6/6	JWB	220
"	Murphy	700

June 5, 1957

Re: DMEA 4671
Geo-Resources Corp.
(formerly Mine Consultants, Inc.)
Blue Mountain Property
Stevens Co., Wash
Rec'd Est. $29,103.65
Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Report.

The applicant requested assistance in exploring a quartz monzonite-metasediment contact zone similar to that at the Midnite Mine in which large reserves (500-600,000 tons of 0.18% U_3O_8) of uranium-bearing material are believed to exist.

Except for traces of radioactive material in the overburden down slope of the assumed position of the contact zone, no radioactive mineral has been found on the referenced property. A comparison favorable in character with the results of similar soil sampling at the Midnite mine and the fact that the contact conditions are roughly similar are given as justification of the application.

Trenching has revealed the contact zone in two places in the referenced property. No specific information is given concerning the conditions at the 2 places, but it is assumed little of interest was revealed. If ore is present, it is in 'non-' detectable blind orebodies.

Apparently there is a 7-mile length of contact zone between the applicant's property and the Midnite mine. No information is given as to results of prospecting this zone, which, I assume, has been done. It may be inferred no large orebodies make surface in the interval, and no 'frequency coefficient' for the zone has been derived.

The proposal smacks of prospecting, the applicant should have done more work, such as trenching, and, perhaps, provided a better target.

However, I concur with the examiners' and Field Team recommendation.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

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May 29, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation
Blue Mountain Mine
Stevens County, Washington

Dear Mr. Selfridge:

Listed below are three copies each of various pieces of correspondence relative to the application of Geo-Resource Corporation, for your information and files.

1. Letter dated March 20, 1957, from Richard Weaver, Executive Vice President, informing their associates and friends of the change in name from Mine Consultants, Inc. to Geo-Resource Corporation.

2. Letter dated April 19, 1957, from Richard Weaver, requesting amendment to item 6(a) of their application. This request was later orally withdrawn by Mr. Weaver.

3. Letter dated May 3, 1957, from William D. Weaver, President of the company, enclosing copies of bulldozing bid from Paul W. Smith.

4. Letter dated May 16, 1957, from Robert J. Meehan, Acting Area Manager of the Salt Lake Area Office, Atomic Energy Commission, endorsing the applicant's proposal of exploration.

Sincerely yours,

D.R. MacLaren
D. R. MacLaren
for: Wing G. Agnew,
Acting Exec. Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: USBM (2)

copies to USBM + USGS
6/3/57 gla

MINE CONSULTANTS INC.
SUITE 320-330 HUTTON BUILDING
SPOKANE 4, WASHINGTON

RECEIVED
BUREAU OF MINES
MAR 22 1957
SPOKANE, WASH

20 March, 1957

TO OUR FRIENDS AND ASSOCIATES:

This is to inform you that pursuant to a special stockholders' meeting held 27 February, 1957, the name of this company has been changed to Geo-Resource Corporation. Henceforth, we would appreciate all correspondence and business matters be addressed accordingly.

Very truly yours,

Richard Weaver

Richard Weaver
Executive Vice President

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

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700

May 24, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4671 (Uranium)
Geo-Resource Corporation (formerly
Mine Consultants, Inc.)
Blue Mountain Property
Stevens County, Washington

Dear Mr. Selfridge:

Enclosed are four copies each of an examination report by D. R. MacLaren, Geologist, U. S. Geological Survey, and a cost analysis report by E. W. Parsons, Mining Engineer, U. S. Bureau of Mines, on the above-referenced application. MacLaren presents a geologic justification for a reduced program of trenching and drilling, and Parsons presents a cost estimate.

The geologic setting of section 10, the area of proposed exploration, is similar to that at the Midnite mine, 7 miles distant. At the Midnite mine ore bodies occur in metasediments near a quartz monzonite-metasediment contact. Individual ore bodies range in length from 150 to over 550 feet and in width from 15 to 60 feet. Total reserves are in the order of 500,000 tons of indicated and inferred ore having an average grade of 0.18 percent U_3O_8, and an additional 100,000 tons of potential ore of similar grade.

Soil sampling of the alluvial dispersion trains has been done by the applicant in the area of the Midnite mine and in section 10. Based on the similar geologic setting and a comparison of the assays of the soil samples from both areas, MacLaren concludes that the chance of making a significant discovery of uranium ore on section 10 is good and he recommends a two stage program of trenching and drilling.

Parsons presents a cost estimate for the first stage recommended by MacLaren.

Reviewed by
DMEA OPERATING COMMITTEE
6-5-57
(date)

ON-SITE EXAM. REPORT

The Field Team concurs with the conclusions and recommendations of MacLaren and Parsons, and further recommends that if Stage II drilling is considered, the rate for plug bit drilling be set at $1 less than the rate for core drilling.

By Field Team, Region I, NW District

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Donald R. MacLaren, Acting Member
U. S. Geological Survey

Enclosures

cc: USBM (2)
USGS (SRO)
AEC (SLC)
AEC (Spokane)
MacLaren

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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

May 20, 1957

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. W. Parsons, Mining Engineer, U. S. Bureau of Mines

Subject: Cost analysis, Docket No. DMEA-4671 (uranium), Geo-Resource Corporation (formerly Mine Consultants, Inc.), Blue Mountain Mine, Stevens County, Washington

This cost analysis is for bulldozing and diamond drilling work which may be performed on the Blue Mountain mine property in sec. 10, T. 29 N., R. 38 E., Stevens County, Washington, should the Government decide to participate in an exploration project.

The amended proposal will consist of approximately 9,600 feet of access road, 7 bulldozer trenches 400 feet apart to cut the granite-argillite contact, 12 diamond drill holes ranging from 100 to 200 feet deep, to be drilled 3 in each of 4 trenches, and 6 diamond drill holes 200 feet deep, one between each trench.

The applicant will furnish a jeep and all other equipment will be furnished by contractors.

	Value	Mo. deprec.
Jeep station wagon	$2,000	$33.33

Estimated time for completion of work to be allowed - 125 days or 5 months.

The work:

9,600 feet of access road
2,100 feet of trenching (maximum)
3,000 feet diamond drill hole - 200 ft. maximum depth
300 chemical assays for U_3O_8

Reviewed by
DMEA OPERATING COMMITTEE
6-5-57
(date)

1. Independent contracts

Bulldozing (Bid by Smith Bros., Spokane, 4/23/57)

Access road	- 60 hours @ $17.50/hr.	$1,050.00
Trenches	- 80 hours @ 17.50/hr.	1,400.00
Drill site preparation, etc.	- 40 hours @ 17.50/hr.	700.00
Transport to and from property	-100 miles @ 1.00/mile	100.00

Diamond drilling (Bid by Morehead & Leaf, Spokane, 2/27/57)

18 holes 100 to 200 feet deep for a total of 3,000 feet @ $6.00/ft.		18,000.00
Driving standpipe	- 100 ft. @ $7.50/ft.	750.00
~~Casing~~ cementing or drilling cement or reaming casing	- 100 ft. @ 3.00/ft.	300.00
Delays	- 24 hrs.@ 7.50/hr.	180.00
		$22,480.00

2. Labor and Supervision

Labor - none

Supervision

Supervisor (must be mining engineer or geologist) 5 months @ $600/mo. (3 mo)	1800 3,000.00
Consulting geologist 5 days/mo. @ $50/day for 5 months (3 mo)	750 1,250.00
	~~4,250.00~~ 2550

3. Operating materials and supplies

Gasoline - 375 gals. @ $0.36/gal.	135.00

4. Operating equipment - ~~to be furnished~~ depreciation

Jeep station wagon @ $33.33/mo. for 5 months	166.65

5. Rehabilitation and repairs — none

6. New buildings, improvements, etc. — none

7. Miscellaneous

Unemploy. comp., Indust, Ins., etc. 14.9% of payroll ($3,000.00) 1800.00	~~447.00~~ 268.20
Samples	
300 assays for chemical U_3O_8 @ $5.00/ea.	1,500.00
300 sample sacks @ $0.35/ea.	105.00
Transportation, etc.	20.00
Total cost of bulldozing and drilling	$29,103.65
Government participation @ 75%	$21,827.74

Distribution:
DMEA (4)
USGS (2)
Docket
Engineer

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RECEIVED MAY 31 1957

DATE	INITIALS	CODE
		130
		220

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

May 15, 1957

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: D. R. MacLaren, Geologist, U. S. Geological Survey

Subject: Field examination report, Docket No. DMEA-4671 (Uranium), Geo-Resource Corporation (formerly Mine Consultants, Inc.), Blue Mountain Property, Stevens County, Washington

INTRODUCTION

Mine Consultants, Inc., of Spokane, Washington submitted an application on February 27, 1957, for aid in exploring for uranium on their Blue Mountain property which comprises all of sec. 10, T. 29 N., R. 38 E., Stevens County, Washington. In a letter dated March 20, 1957, Mine Consultants, Inc., announced that the name of the company had been changed to Geo-Resource Corporation. No change in the corporate organization or officers was involved. The property, owned by the State of Washington, is held under a consolidated mining contract by the Grandview Mining Company who have an operating agreement with the applicant.

The field examination was made on April 17, 1957, accompanied by E. W. Parsons, Mining Engineer, U. S. Bureau of Mines, and George B. Weaver, Vice President and General Manager, Fred O. Jones, Consulting Geologist, and Lewis L. Oriard and Jack Stickle, Geophysicists, all representing the applicant. Two conferences have been held at the Geological Survey office to discuss various phases of the contract.

It is concluded that the chance of making a significant discovery is sufficiently good to justify a modified version of the applicant's proposal.

Reviewed by
DMEA OPERATING COMMITTEE
6-5-57
(date)

SUMMARY

Uranium was discovered in Stevens County, Washington, on the Spokane Indian Reservation in 1954 along a contact between quartz monzonite and metasedimentary rocks. In consequence, much of the land along the contact has been prospected. The Grandview Mining Company originally held prospecting rights on sec. 10, T. 29 N., R. 38 E. W. M., and in 1955 made five shallow trenches along or near the contact, two of which exposed the contact. No mineralization or anomalies were found and that company discontinued prospecting; nevertheless, Grandview Mining Company obtained a consolidated mining contract from the State of Washington.

At the Midnite mine, 7 miles southwest of section 10, several ore bodies, ranging in size from 150 to over 550 feet long and from 15 to 60 feet wide have been found along the same contact. Mine Consultants, Inc., made an operating agreement with Grandview Mining Company, and in 1956 conducted a geochemical survey. The operating agreement with Grandview Mining Company is now in the name of Geo-Resource Corporation. It was discovered that soil samples in alluvial dispersion trains downslope from the quartz monzonite-metasediment contact in section 10 contained trace anomalies of uranium. Other areas including the Midnite mine were systematically tested by geochemical methods. The fact that trace mineralization lies downslope from the quartz monzonite-metasediment contact suggests the possibility of a buried zone of mineralization near the contact. It appears most likely that ground water has leached uranium from a presently unlocated underground source and has redeposited it on carbonaceous or other material in stream channels at and below the horizon where the water emerges as springs.

Over 1,600 samples from various locations have been tested including 150 from section 10 which, on the basis of the anomalies, offers the best target for exploration.

CONCLUSIONS AND RECOMMENDATIONS

In view of the discovery of blind ore bodies of significant size at the Midnite mine, which were not detectable at the surface, but were found by drilling in the area of known ore bodies, it is concluded that the lack of surface anomalies in the contact area on section 10 should not be considered as indicating the absence of ore bodies in that area. In fact, as described by Thomas S. Lovering and others in USGS Professional Paper 300, pages 659-665, leaching might result in negative anomalies directly over an ore body.

On the basis of comparison of the anomalies in section 10 with those in the Midnite mine area, it is further concluded that the chance of making a significant discovery cannot be overlooked, and that additional exploration is justified.

Therefore, it is recommended that a two stage modified version of the applicant's proposal to explore by trenching and diamond drilling be approved.

ACCESSIBILITY

The property is easily reached by automobile from the town of Springdale, Washington, 40 miles northwest of Spokane on U. S. Highway 395, by going west 8 miles on the Hunters road, a secondary state highway, thence 2 miles on a graded county road, then 2 miles by logging road to the edge of section 10. Federal and state highways are kept open the year around by the county, but logging roads may be blocked by snow in the winter and may be practically impassible in the spring due to wet weather and mud.

PROPERTY

The property included in the application consists of all of sec. 10, T. 29 N., R. 38 E., Stevens County, Washington. The land belongs to the State of Washington. Prospecting rights on the tract, and subsequently a 20-year renewable consolidated mining contract were obtained by Grandview Mining Company, who have signed a 20-year operating agreement with the applicant.

COMPETENCY OF APPLICANT

The applicant is a company formed to operate as a mining company, and to engage in consulting work in mining and geology. Officers of the company are William, Richard, and George Weaver; F. O. Jones is consulting geologist. The Weavers are apparently not trained technical men, but Jones who worked for the Engineering Geology Branch of the U. S. Geological Survey for about 7 years is a competent geologist.

It is believed that the applicant company is able to finance its share of the cost of the amended project.

DESCRIPTION OF THE PROPERTY

No facilities exist on the property. Grandview Mining Company made five shallow bulldozer trenches on the property, two of which cut the quartz monzonite-metasediment contact. Topographic relief on the property is 1,800 feet, with altitudes ranging from

2,000 to 3,800 feet above sea level. The northern ridge of Blue Mountain runs to the northeast through the center of the section. The surface is covered with second growth conifer and the undergrowth is very heavy over much of the area.

GEOLOGY

The geology of the area to be explored is similar to that in the area of the Midnite mine, about 7 miles to the southeast, which is described briefly by Ernest E. Thurlow of AEC in U. S. Geological Survey Professional Paper 300 (1955) pages 85-88, and in more detail in U. S. Geological Survey Trace Elements Investigations Report 634 by Eugene L. Boudette and Paul L. Weis (1957). Most of this report has been taken from these papers, and is supplemented by observations made during a 2-hour inspection of the applicant's property.

General Geology

Metasedimentary rocks of Precambrian(?) age have been intruded by two varieties of quartz monzonite of Cretaceous(?) age. One variety of quartz monzonite is equigranular, the other is porphyritic. The metasedimentary rocks comprise slate, argillite, phyllite, dolomitic limestone, quartzite, and limestone, which have been thermally metamorphosed near the intrusive contact.

The dominant structural feature is a northeast-trending anticlinal fold involving all the preintrusive rocks. The anticline is about 30 miles long and, near its southwest end, is overturned to the west. Faults and minor folds are superimposed on the major structure in a number of places. Small dikes and sills of aplite, pegmatite, hornblende lamprophyre, and felsic rock of unusual composition are present in many places; the first two dike types intrude both the igneous and the metasedimentary rocks, while the two latter types intrude only the metasedimentary rocks.

At the Midnite mine, ore bodies occur at or near the contact between porphyritic quartz monzonite and schistose or spotted phyllite along a zone nearly 2 miles long. In size, the ore bodies range from about 150 to over 550 feet in length and from about 15 to 60 feet in width; they generally are surrounded by a low-grade halo. From figures available in the Spokane office of the Atomic Energy Commission, it is estimated that the reserves comprise about 500,000 tons of indicated and inferred ore having an average grade of 0.18 percent U_3O_8 and 100,000 tons of potential ore having about the same grade. Based on these reserves, Dawn Mining Company, a subsidiary of Newmont Mining Company, is constructing a 400-ton per day mill at Ford, Washington. One of the terms under which the mill was authorized is that 25 percent

of the daily capacity must be made up of any custom ore of acceptable grade that may be offered.

Although some of the ore bodies start at the bedrock surface, others do not and are truly "blind" deposits. Over many of the blind ore shoots, no radioactivity or geochemical anomalies were detected. There does not appear to be any structural or lithologic differences in the barren rock between the ore bodies but over the shallower ore zones background radioactivity is three to five times greater than normal.

Local Geology

On the applicant's property, the rocks are metasediments, porphyritic quartz monzonite, and probably some pegmatite. The overburden which ranges from about 4 to 15 feet thick, covers the contact and makes its exact location difficult to determine. Surface investigations with Geiger counter and scintillometer failed to reveal any zones of radioactivity above background. This could well be due to a shielding or absorption of the radiation by the overburden or to the fact that any uranium deposits which may exist in the area do not reach the surface of the metasediments.

The applicant has taken a great many soil samples in alluvial dispersion trains downslope from the metasediment-quartz monzonite contact, and on sec. 10, T. 29 N., R. 38 E., has found significant trace anomalies of uranium. For purposes of comparison, Newmont Mining Company gave the applicant permission to take a similar series of soil samples in the Midnite mine area.

A comparison of the results taken in the Midnite area with those taken in section 10 given in a geologist's report accompanying the application shows:

	Midnite mine area	Section 10
Total number of samples considered	69	150
Percent of samples showing anomalies	62	88
Average ppm of samples showing anomalies	21	43
Average ppm of all samples	13	37

It is believed that, because the trace mineralization is in every case downhill from the contact, it is reasonable to suppose that there may be bodies of uranium ore along or near the contact. It is also argued by the applicant's geologist that, because the average ppm content in section 10 is almost double that in the Midnite area, these ore bodies may be larger and/or higher grade than the ones discovered on the Midnite property.

As the anomalies are found only along the channels of the dispersion trains and die out at about the highest point of surface water flow in each anomaly-bearing train, it is not unreasonable to assume that subsurface flows have leached small amounts of U_3O_8 from ore bodies and subsequently deposited them where the flows come to the surface and ran down the stream channels. A concentration of organic material in the surface water courses doubtless aids in the deposition of the U_3O_8. If the anomalies represented surface indications of underlying ore bodies, at least some of the anomalies should be much greater than they are, the strikes of the ore bodies would be almost normal to that of the Midnite ore bodies, and they would be in the quartz monzonite rather than in the metasediments where all the presently known deposits of any importance are found. It is, therefore, more probable that anomalies are secondary rather than primary (USGS Professional Paper 300, p. 660). Uranium in trace amounts dies out from 150 to 250 feet vertically below the contact. Therefore, it is reasonable to suppose that if the uranium comes from blind ore bodies, the latter should not be more than 100 to 200 feet deep and may be shallower.

That the higher anomalies in section 10 portend higher grade ore bodies than those found at the Midnite mine has not been established. Although such may be the case, there are too many variable factors to be determined before such a supposition can be accepted as valid.

PAST OPERATION

Before the applicant obtained an operating agreement from Grandview Mining Company, work on the property consisted of the five trenches. Since taking possession no earth-moving work has been done. The field work for the geochemical survey consisted of taking samples of about ½-pound from 4 inches below the surface across and along alluvial dispersion trains or stream beds. No radiometric anomalies were found on the property when using a scintillator and no uranium minerals were identified. No shipments have been made.

SUPPLIES AND EQUIPMENT

Supplies and equipment are available in Spokane, 52 miles by road to the southeast. Manpower is available locally or in the Spokane area. Water for drilling is available on the property and electric power could be obtained if needed. The local wage scale ranges from $15 to $20 per day.

APPLICANT'S PROPOSAL AND COSTS

The applicant proposes 400 hours of bulldozing to construct the necessary access roads and excavate nine trenches at 300- to 400-foot intervals to locate the contact. After locating the contact, he proposes 44 vertical diamond drill holes (45 shown on his pl. No. 8) to an average depth of 200 feet. According to his plate No. 8, there will be 29 holes at 100-foot intervals drilled in the metasediments about 50 feet from the contact. In and along the line of every other trench 16 holes, four in each trench, will be drilled at 100-foot intervals in a line normal to the trace of the contact. The estimated time required to complete the contract is 7 months.

The bulldozing and diamond drilling will be done by independent contract. A consulting geologist, a supervisor, and one laborer will be hired. The most favorable bid for bulldozing with a D-8 dozer is $17.50 per hour; for drilling BX size holes to a depth of 200 feet is $6.50 per foot; the consulting geologist's fee is $120.00 per day for 10 days per month; the supervisor will be paid $600.00 per month; and the laborer will be paid $400.00 per month. Also included in the applicant's costs is provision for 300 samples at $3.50 each. The total cost estimated by the applicant is $81,650.00 of which the Government's share would be 75 percent or $61,237.50.

During the inspection of the property the applicant suggested the possibility of substituting geophysical traverses with an electromagnetometer for trenching to locate the contact, and later submitted a formal request for such work at an estimated total cost of $6,400.00. This would have eliminated 240 hours of bulldozing at a cost of $4,200.00 but the net effect would have been to increase the cost of the project by the amount of $2,200.00.

DISCUSSION OF THE APPLICANT'S PROPOSAL

The applicant's proposal was discussed during two conferences in the Spokane office of the DMEA. Present at the first conference were Messrs. William D. Weaver, George B. Weaver and Fred O. Jones representing the applicant and A. E. Weissenborn and D. R. MacLaren of the Geological Survey and E. W. Parsons of the Bureau of Mines representing the DMEA. Also present were Messrs. Jack Stickle and Lewis Oriard, geophysicists, who accompanied the applicant's representatives.

Stickle and Oriard attempted to justify their estimated costs for the electromagnetic survey, essentially by emphasizing the number of recordings necessary to locate the contact with precision. The Field Team pointed out that because of the generally shallow cover, the contact probably could be located quicker and more cheaply by mapping float, bulldozing or drilling shallow holes through the overburden. After some discussion it was agreed that the less costly bulldozing would locate the contact with sufficient accuracy to lay out the drill holes, and the request for geophysical work was orally withdrawn by the applicant. The company will do some geophysical work at its own expense.

Present at the second conference were Messrs. Fred O. Jones and George B. Weaver for the applicant, and A. E. Weissenborn and D. R. MacLaren of the Geological Survey and S. W. Zoldok of the Bureau of Mines, for the DMEA. One purpose of this meeting was to discuss a reduction in the amount of trenching and drilling.

It was agreed that the primary purpose of the trenching was to locate more closely the position of the contact, rather than to explore for ore at the contact.

Accordingly, it was agreed that seven trenches, spaced about 400 feet apart would locate the contact with sufficient accuracy to spot the drill holes, and that a minimum of 18 drill holes would be sufficient to determine whether or not the trace anomalies are due to the presence of ore bodies of significant size.

Considerable thought was given to the spacing of the holes. Based on analogy with the Midnite area, if ore bodies exist, they may be expected to range from 150 to 550 feet in length with long barren intervals between the ore bodies. If the 2,500 foot length of contact along which anomalous samples have been obtained is to be explored at all, it must be explored with sufficient thoroughness so that it will be certain that nothing of importance has been missed. Because there is generally a low-grade halo surrounding the Midnite ore bodies, spacing can be somewhat greater than the 150 foot length of the smaller ore bodies but cannot safely exceed about 250 feet.

Ten holes, spaced approximately 250 feet apart, will be drilled to depths of 150 and 200 feet in the metasediments 50 feet from the contact. At intervals of approximately 800 feet, along the center lines of trenches 3, 2, 5, and 7, profile drilling will be accomplished by drilling a total of eight additional holes. Of these holes, four will be drilled to depths of 100 feet in the quartz monzonite 50 feet from the contact, and four will be drilled to depths of 200 feet in the metasediments 150 feet from the contact.

The question of the possibility of less costly plug bit or rotary drilling replacing some of the core drilling, as suggested in the Operating Committee's March 29, 1957 letter of referral, was also discussed at the second meeting. Because so little is known regarding the altitude of the contact or secondary structural features that may be present and could have some control on ore deposition, it was concluded that any or all of the 18 holes could disclose critical geologic information and, therefore, all should be core drilled. Should any of the drilling recommended in Stage II be advisable after completion of Stage I, it is probable that some of these holes could be drilled by plug bit drilling. However, it has been the experience of drillers attempting to drill by plug bit in this area that costs are about the same as for core drilling.

Another question discussed at this meeting was the applicant's proposed costs for labor and supervision. The supervisor will lay out the roads, locate the trenches and drill sites, log the drill cores and take the samples. However, the Field Team stated that in its opinion the proposed expenditure for the consulting geologist was excessive.

RECOMMENDED PROJECT

Stage I. Work under Stage I will comprise 180 hours of bulldozing access roads, trenches, and drill sites. The time required for each type of work will be approximately as follows:

(1) 60 hours for access roads.

(2) 80 hours for trenches.

(3) 40 hours for preparation of drill sites.

Because of the steepness of the slopes and the abundant timber and underbrush that will at times make the bulldozer work difficult and slow, the estimated time of 180 hours for this work is not excessive.

Trenching will be only sufficient to locate the contact between the monzonite and the metasediments; it will comprise seven trenches approximately 400 feet apart which should be excavated in the order shown on plate 1. Trenches 1 and 2 are in an area where the location of the contact is approximately known. Each successive trench should be started on the probable location of the contact as projected from the preceding one.

Diamond drilling will be done at the approximate locations shown on plate 1. In or along the line of trenches 2, 3, 5, and 7, approximately at right angles to the contact, three diamond drill holes will be drilled. In each trench, one hole 50 feet from the contact will be drilled to a depth of 100 feet in the quartz monzonite; two holes will be drilled in the metasediments at distances of 50 and 150 feet from the contact to depths of 150 and 200 feet, respectively. No holes will be drilled in trenches 1, 4, and 6 but 150 feet on each side of these trenches and 50 feet from the contact, holes will be drilled in the metasediments to depths of 200 feet.

Stage II. Drilling under Stage II will only be done if the drilling in Stage I indicates that there are target areas worth additional drilling and any drilling under this stage must have the prior approval of the Field Team. In this event, holes would be drilled no closer than 100 feet and only enough holes will be drilled reasonably to delimit the size of any indicated ore body. For this purpose, drilling will be done by plug bit to the ore zone, and by core drilling through the ore zone. It is estimated that 1,500 feet of plug bit and 500 feet of core drilling will be required.

Enclosure

Distribution:
DMEA (4)
USBM (2)
USGS (SRO)
AEC (SLC)
AEC (Spokane)
Docket
MacLaren

OFFICIAL FILE COPY
DMEA
RECEIVED
DATE 4/30 C
" Murphy 700
NOTE 220

So. 157 Howard Street
Spokane 4, Washington

April 26, 1957

Mr. Arthur E. Granger, Manager
Salt Lake Area Office
U. S. Atomic Energy Commission
P. O. Box 2196
Salt Lake City, Utah

Re: Docket No. DMEA-4671 (Uranium)
Mine Consultants, Inc.
Blue Mountain Mine
Stevens County, Washington

Dear Art:

Enclosed is a thermofax copy of an application (without maps) we received from Mine Consultants, Inc. Also attached is a copy of our transmittal letter to Washington. We are loaning to your Spokane office an official copy of the application, complete with maps and an accompanying report by F. O. Jones. Don Hatland may forward these to you if you wish but we would like to have them returned to us after you have finished with them. This is the only copy of the report we have.

We would appreciate any comments you may have to offer on the merits of this application.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

Enclosures

cc: AEC, Spokane w/1 copy app.
DMEA (2)
USBM (2)

DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
3/27	Murphy	700
3/27	Ely	700
3/29	Selridge	130
"	Johnson	110
"	Patterson	100
		220

MAR 29 1957

Mr. William D. Weaver, President
Mine Consultants, Inc.
Suite 525-528 Hutton Building
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Sec. 10, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

Bishop
Kulogoard

Dear Mr. Weaver:

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:

Mr. A. E. Weissenborn
Executive Officer, DMEA Field Team
Region I, Northwest District
South 157 Howard
Spokane 4, Washington

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

C. O. Mittendorf

Administrator

FMMurphy/izm 3-27-57
cc to: Mr. Murphy
Admr.'s Reading File
DMEA FT Reg. I, NW Dist. (2)

8623

DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
3/27	Murphy	700
3/27	Ellis	700
3/29	Selfridge	130
"	Johnson	110
"	Matteucci	100
4/1	C	220
		700

Brisp

MAR 29 1957

Mr. A. E. Weissenborn
Executive Officer, DMEA Field Team
Region I, Northwest District
South 157 Howard
Spokane 4, Washington

Re: Docket No. DMEA-4671 (Uranium)
Mines Consultants, Inc.
Sec. 10, T. 29 N., R. 38 E., W.M.
Stevens County, Washington

Dear Mr. Weissenborn:

The captioned application is referred to the Field Team, Region I, Northwest District, for investigation, a field examination if deemed advisable, and recommendations.

Enclosed are copies of memoranda, dated March 18 and 25, 1957, by J. E. Crawford, USBM, and W. P. Williams, USGS, respectively, relating to the application. Also enclosed, for Field Team use, are one copy of the application and a supplemental report by Fred O. Jones and George B. Weaver.

We note in your memorandum of February 28, that copies of the property lease will be forwarded to this office. Since the proposed project is on state land, in the event the Field Team recommends a contract to explore section 10, it should advise the Applicant that we will require a Performance Bond in lieu of a Consent to Lien and Subordination Agreement, if the latter cannot be obtained from the state.

According to the information submitted by the Applicant; the geologic data in USGS Professional Paper 300 (pages 85-88) by Ernest E. Thurlow, A.E.C.; and the reports in the February 1957 (pages 218-220) issue of the Engineering and Mining Journal, the subject property appears to be in a favorable area.

The proposed exploration program as submitted seems well planned, however, if the Field Team believes that some drilling is warranted, consideration should be given to less costly plug or rotary drilling, with only a few holes being core drilled for geologic information.

8623

The Applicant's estimate for the cost per hour of bulldozing and the bids submitted for the proposed drilling appear high in comparison to our usual estimates. We also note that the estimate for consulting services is excessive in both time and cost per day, especially, with a proposed project supervisor and a helper working full time.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

Enclosures

APPROVED:

O. M. Bishop

Member, Bureau of Mines (HB)

Thor H. Kiilsgaard

Member, Geological Survey (HB)

FMMurphy/izm 3-27-57

cc to: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

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

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 26 1957

DATE	INITIALS	CODE
3-26	C	220
"	~~E. Ellis~~	700
"	Murphy	
	Comments Complete	

March 25, 1957

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of application, DMEA 4671, Mine Consultants, Inc., sec. 10, T. 29 N., R. 38 E., Stevens County, Washington, (uranium).

The applicant proposed to explore for uranium ore deposits on a section of land located in the Spokane Indian Reservation. The property lies astride the contact between the Loon Lake granite of Cretaceous (?) age and the Deer Trail argillite of late Paleozoic (?) age.

There are many strong similarities between the applicant's property and the Midnite mine which is located in the same general geological situation some 7 miles to the southwest. The Midnite mine produced 5,400 tons of ore to May, 1956. It is likely that half a million tons of probable ore reserves exist on the Midnite property.

The applicant bases his exploration proposals on the results of geochemical surveys he has completed in the vicinity. To obtain check data the applicant took soil samples on the Midnite mine property. The U. S. Geological Survey also completed a geochemical soil analysis survey on the Midnite property about a year ago. The highest value obtained on the Midnite mine by the applicant seems to have been only 140 parts uranium per million. The Survey's maximum value was on the order of 2,000 parts uranium per million, (TEI 634, Geology of the Midnite Mine area, Boudette and Weiss).

From the Survey's geochemical work it would seem that the general background level for the region might be on the order of 10 to 25 ppm uranium. The applicant has found several places on his property that are well above background.

The proposed project would consist of a total of 44 diamond drill holes, and nine bulldozer trenches at a total estimated cost of $81,650.

I recommend that the application be referred to the Field Team for further action. The proposed project appears to have considerable merit; and it seems likely that DMEA participation in an exploration project, possibly somewhat modified from the applicant's proposal, is warranted.

W. P. Williams

W. P. Williams

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 18 1957

DATE	INITIALS	CODE
3/18	C	220
"	Ellis	700

March 18, 1957

4671

Uranium

Mine Consultants, Inc.

Blue Mountain Mine

Stevens County, Washington

$81,650.00

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

JEC

Application

2/28/57 3/14/57

[x]

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

March 8, 1957

Mines Consultants, Inc.
Suite 525-528 Hutton Bldg.,
Spokane 4, Washington

Subject: DMEA-4671
Re: Exploration Assistance

Gentlemen:

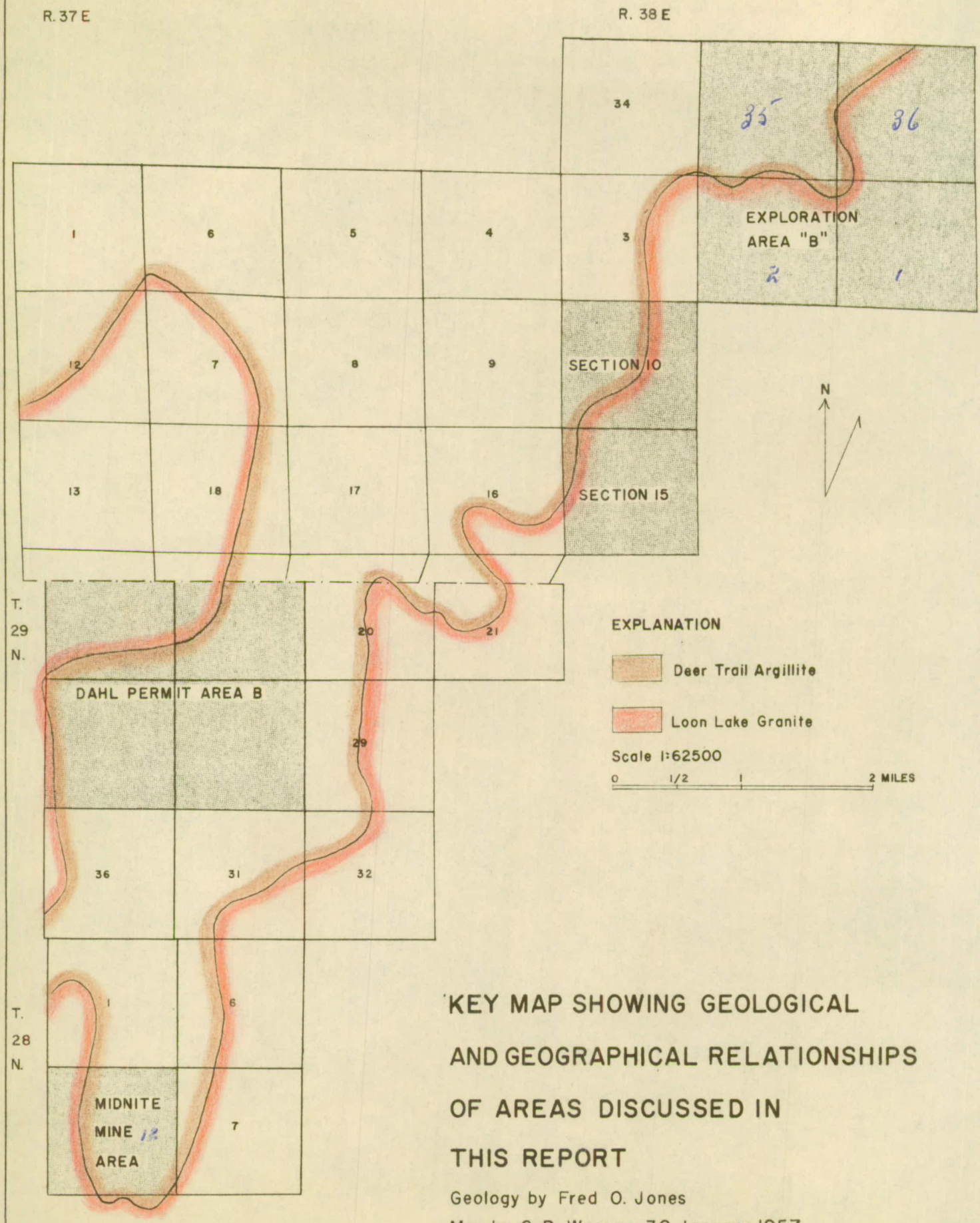
Your application for exploration assistance, dated February 27, 1957 submitted to our office at Spokane, Washington has been assigned Docket Number DMEA-4671 and referred to the Rare & Miscellaneous Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Chief
Operations Control and
Statistics Division

Copy to: Region I N. W.

3571



KEY MAP SHOWING GEOLOGICAL AND GEOGRAPHICAL RELATIONSHIPS OF AREAS DISCUSSED IN THIS REPORT

Geology by Fred O. Jones

Map by G. B. Weaver, 30 January 1957

SECTION 15, TOWNSHIP 29 N., RANGE 38 E., W.M. - PLATE 4
PROPERTY OF UNIVERSAL MINING CORPORATION

This table has been compiled in the same manner as the table comparing the Midnite Mine area and Section 10 and may be compared directly with it. The average values of anomalies presented here are the highest that were found in any area but it is felt that this is due to an alluvial dispersion train which probably derives its high values from buried mineralization along the eastern edge of Section 16 as well as the western edge of Section 15. This summary tabulation, like that for the Midnite Mine Section and Section 10, does not include many samples taken out of alluvial trains which all proved to be negative.

Total Samples	Percent Showing Anomalies	Average ppm of all Samples	Average ppm of Samples Showing Anomalies
158	87	63	73

EXPLORATION AREA "B" - PLATE 5

Total Samples	Number Showing Anomalies	Average ppm of Samples Showing Anomalies
70	14	8

DAHL URANIUM MINE, INC. - PERMIT AREA "B" - PLATE 6

Total Samples	Number Showing Anomalies	Average ppm of Samples Showing Anomalies
993	0	0

SOIL SAMPLES FROM VARIOUS LOCATIONS,
SPOKANE INDIAN RESERVATION AREA - PLATE 7

GROUP A

Alluvial samples from draws and valleys which cut through only members of the Deer Trail Argillites.

Total Samples	Number Showing Anomalies	Average ppm of Samples Showing Anomalies
30	0	0

GROUP B

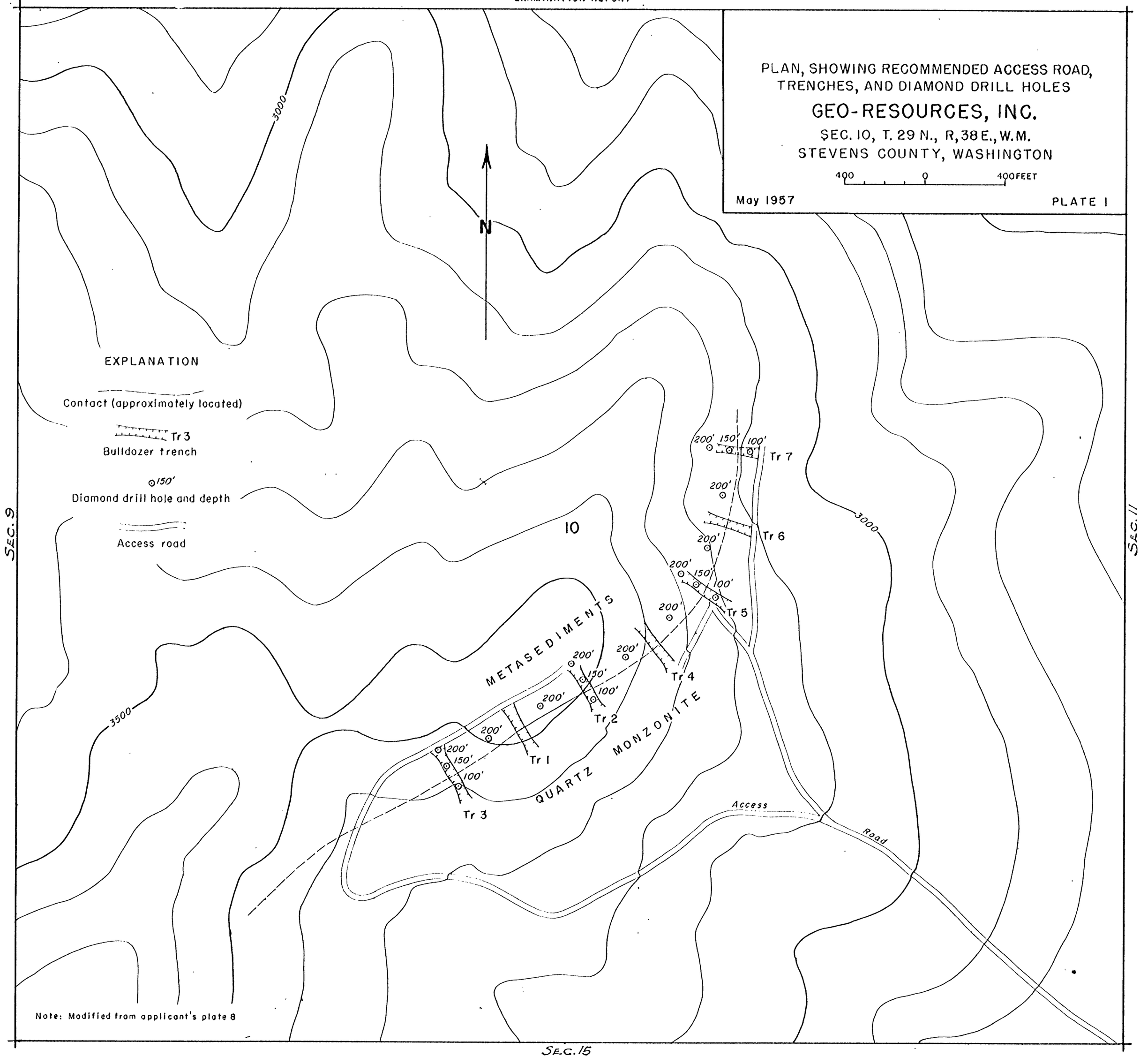
All samples taken in alluvial and residual soils in or below contact zones.

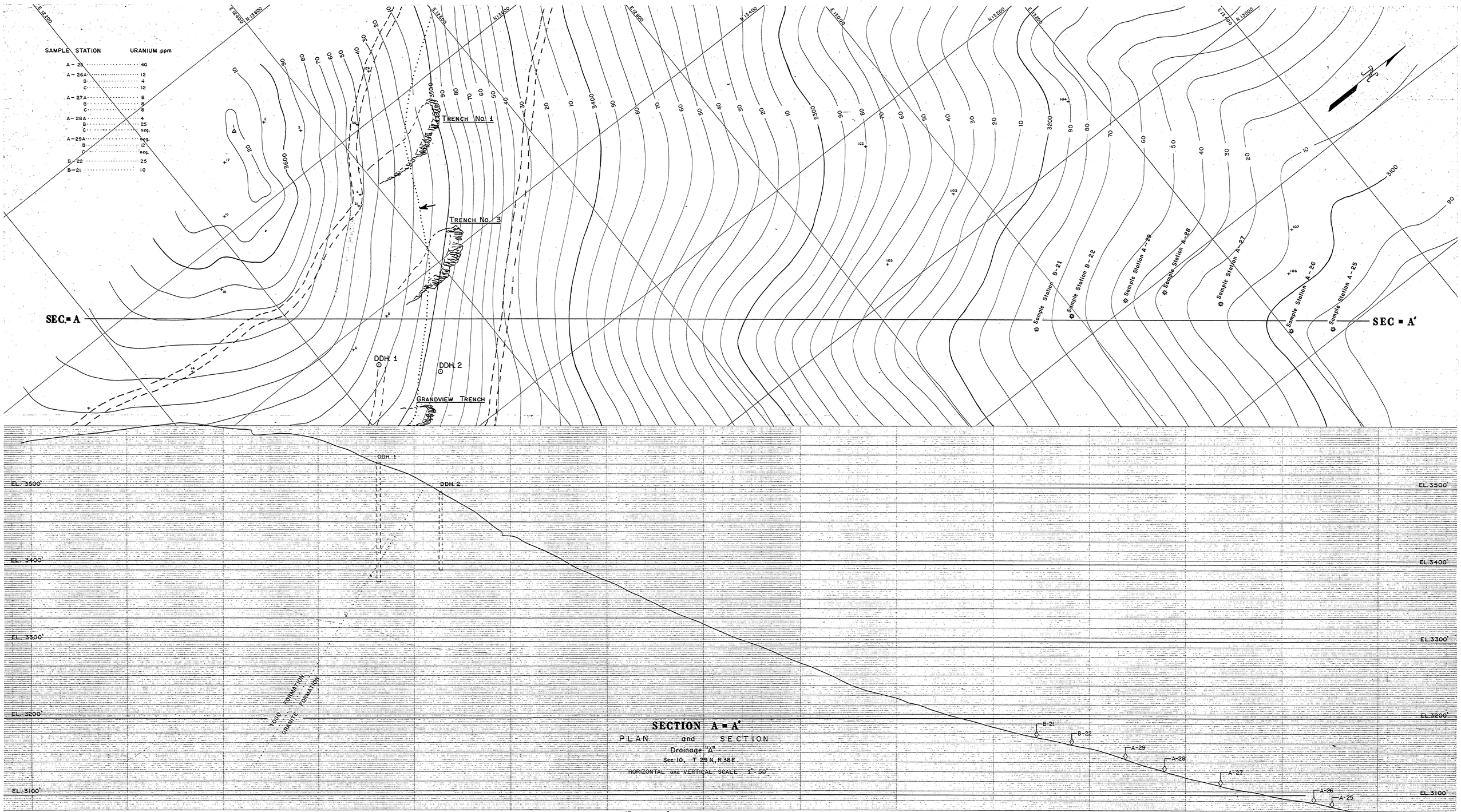
Total Samples	Number Showing Anomalies	Average ppm of Samples Showing Anomalies
169	6	12

FIELD SAMPLING TECHNIQUES

The principal technique used in this study was the systematic sampling of alluvial dispersion trains in draws downslope from a granite-argillite contact considered favorable for mineralization. The samples were taken at an average depth of three to four inches below the surface. Depth samples taken in several different areas have shown that there is little variation in values in the first two feet of depth, so the three to four inch depth was decided upon as being deep enough to get below any possible surface contamination, and shallow enough to allow for rapid sampling with a minimum of excavation.

During the early part of the study only one sample was taken at each station. As the study proceeded it was observed that the values in parts per million at any given station vary erratically, and that of two samples taken within a foot or two of each other, one might be negative and the other be spectacularly high. Therefore it was decided to take three random samples at each station, both to enhance the possibility of obtaining highs, and to achieve a rough average for each station. It should be pointed out that while the symbols on the map are spread out for easier reading, the samples at each station were actually taken quite close together, one sample rarely being more than ten feet from its neighbors at that particular sample station. The samples were dug with an army surplus entrenching shovel which was found adequate for the digging required, yet small and light enough to be carried easily through thick brush. A raw sample of some ten or twenty grams was taken at each sample point and put


PLAN, SHOWING RECOMMENDED ACCESS ROAD, TRENCHES, AND DIAMOND DRILL HOLES
GEO-RESOURCES, INC.
SEC. 10, T. 29 N., R. 38 E., W.M.
STEVENS COUNTY, WASHINGTON
400 0 400 FEET
May 1957
PLATE I
N
EXPLANATION
Contact (approximately located)
Tr 3
Bulldozer trench
150'
Diamond drill hole and depth
Access road
3000
3500
10
SEC. 9
SEC. 11
SEC. 15
METASEDIMENTS
QUARTZ MONZONITE
Tr 1
Tr 2
Tr 3
Tr 4
Tr 5
Tr 6
Tr 7
200'
150'
100'
Access
Road
Note: Modified from applicant's plate 8

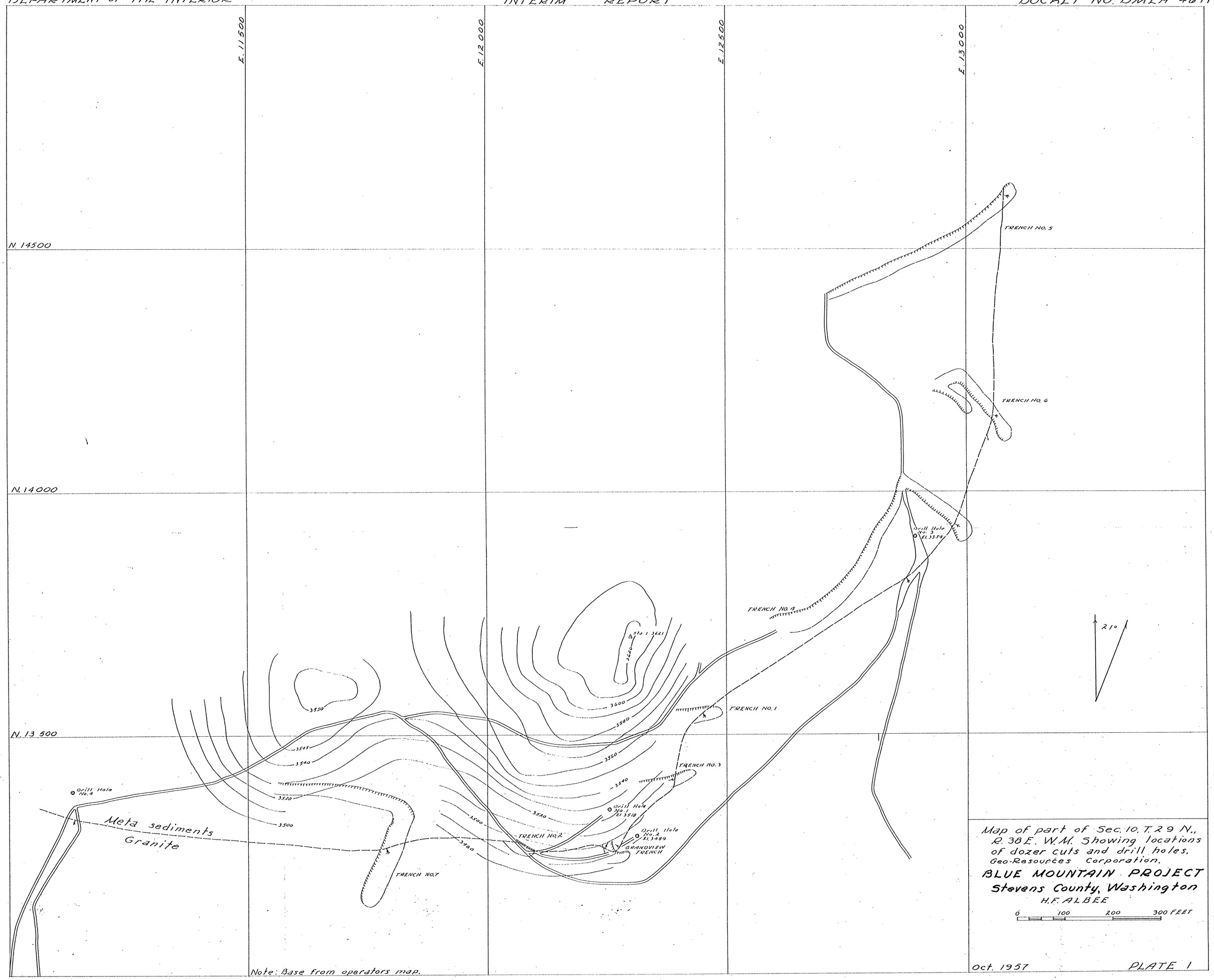


Recd w/F.T. letter 11-13-57

UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
INTERIM REPORT

DOCKET NO. DMEA 4671



Map of part of Sec. 10, T. 29 N., R. 38 E. W.M. Showing locations of dozer cuts and drill holes. Geo-Resources Corporation.

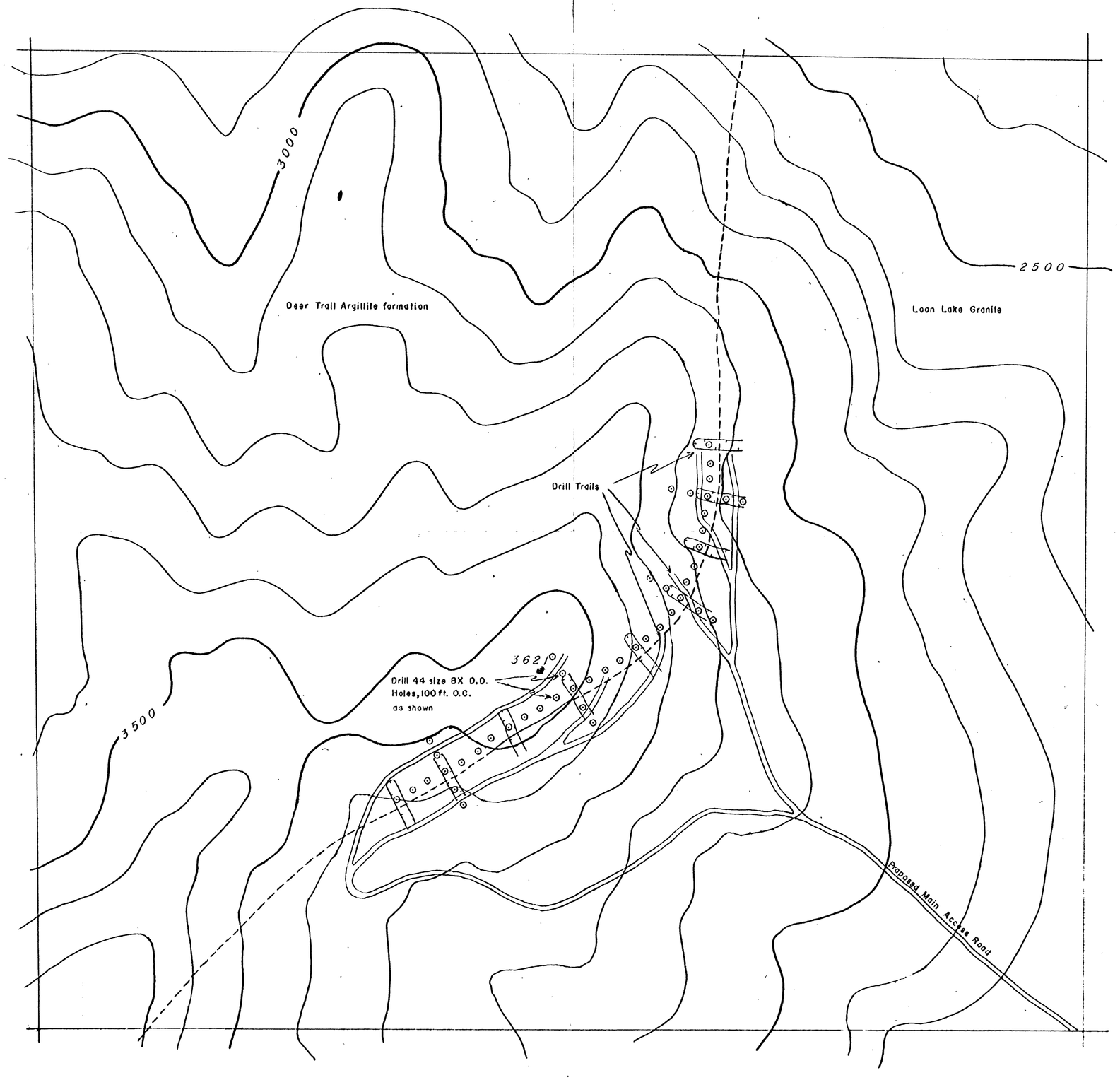
BLUE MOUNTAIN PROJECT
Stevens County, Washington

H.F. ALBEE

Note: Base from operators map.

Oct. 1957

PLATE 1



N

EXPLANATION

Contact (approximately located)

Proposed diamond core drill holes — average depth 200 ft. — total holes 44

Proposed bulldozer trenches to locate position of contact — average length 250 ft.; average depth 6 ft.; total trenches-9

Proposed access road and drill trails

Scale 1 inch = 400 feet

Contour interval 100 feet

Topography adapted from USGS Hunters Quadrangle (1950)

Sketched in generally in eastern third of section

MINE CONSULTANTS INC.

PROPOSED EXPLORATION PROGRAM - SECTION 10 - BLUE MOUNTAIN MINING CO.

Exploration program by Fred O. Jones

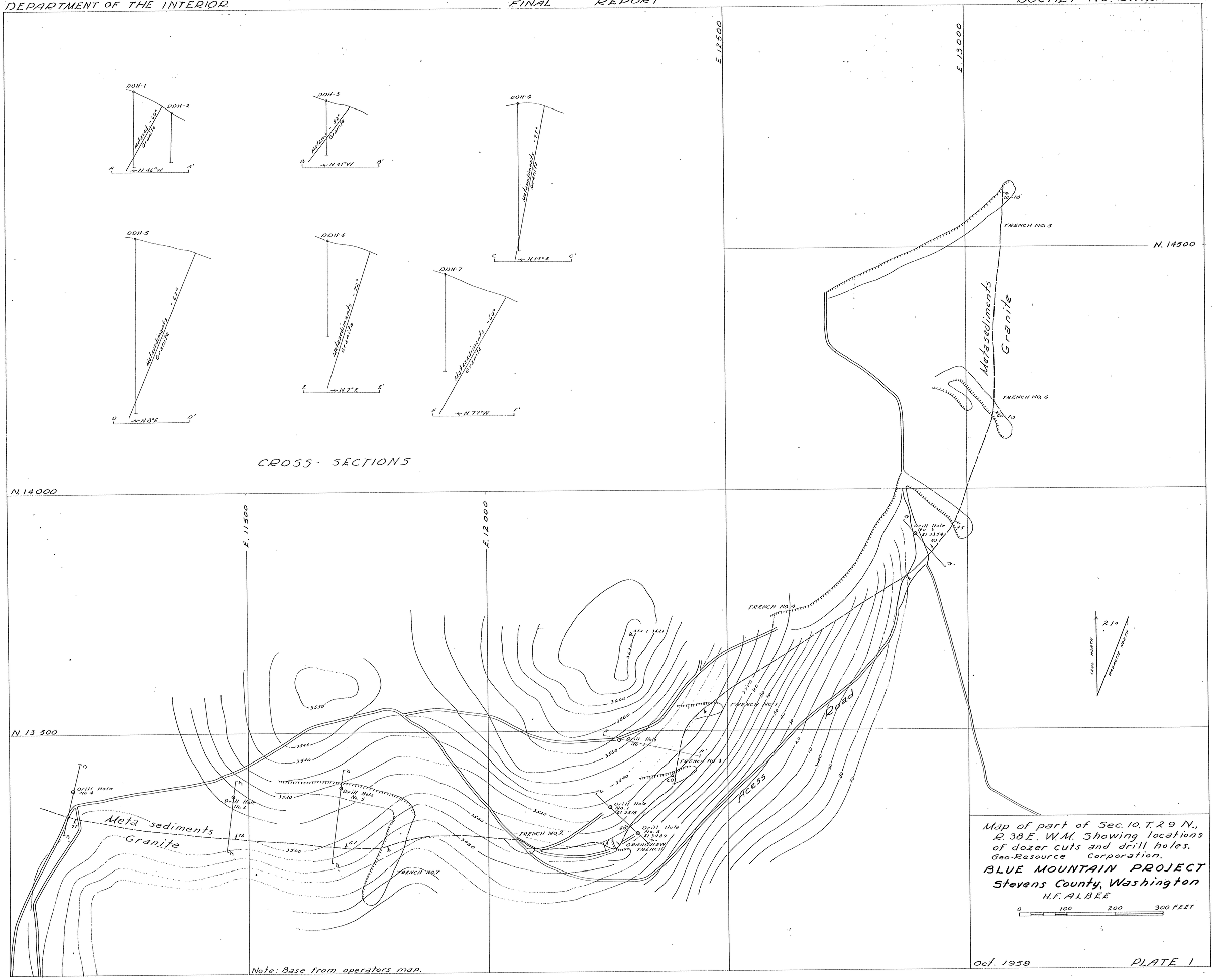
Road layout and Map by G. B. Weaver, 8 February 1957

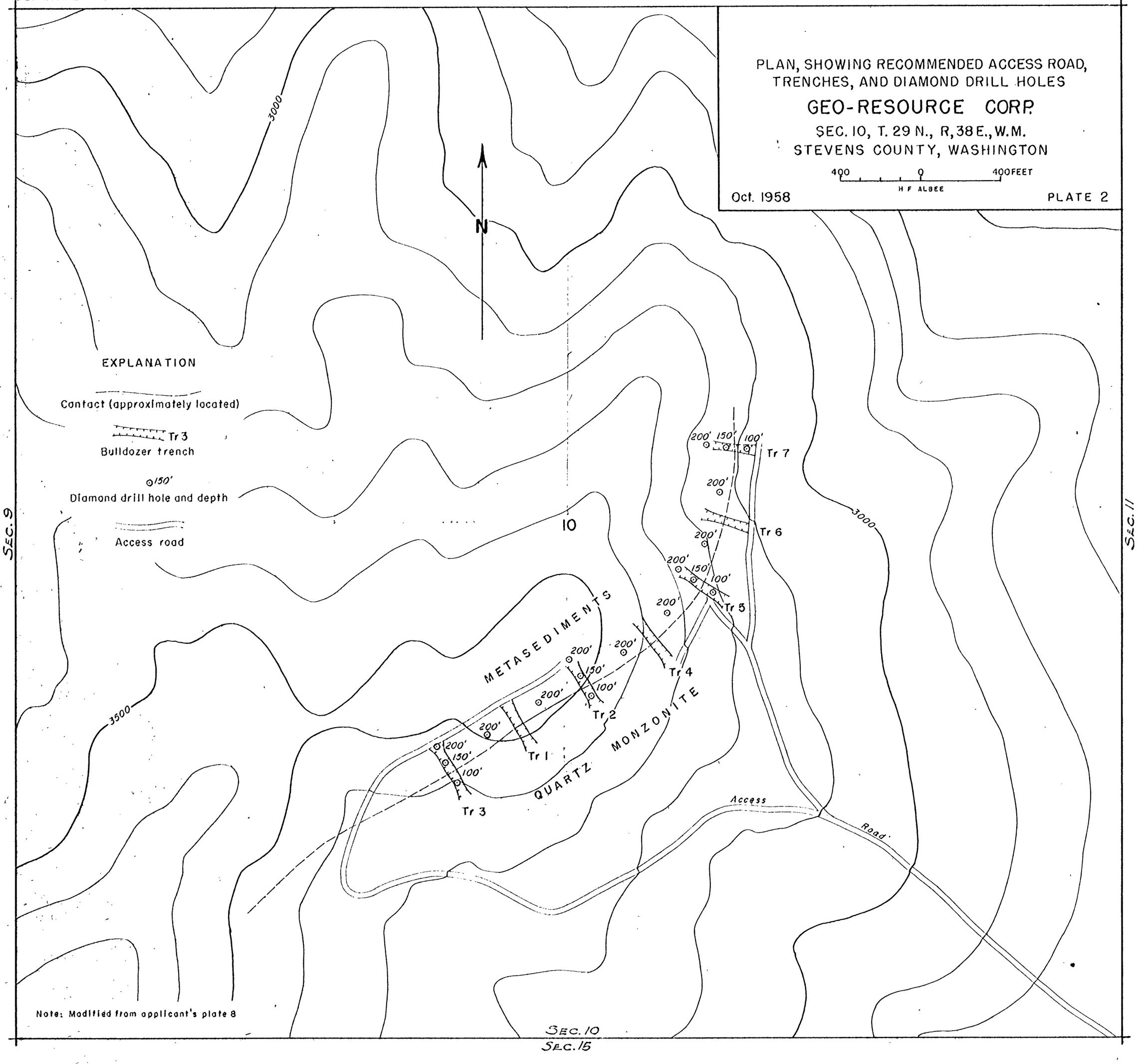
Plate No. 8

UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
FINAL REPORT

DOCKET NO. DMEA 4671

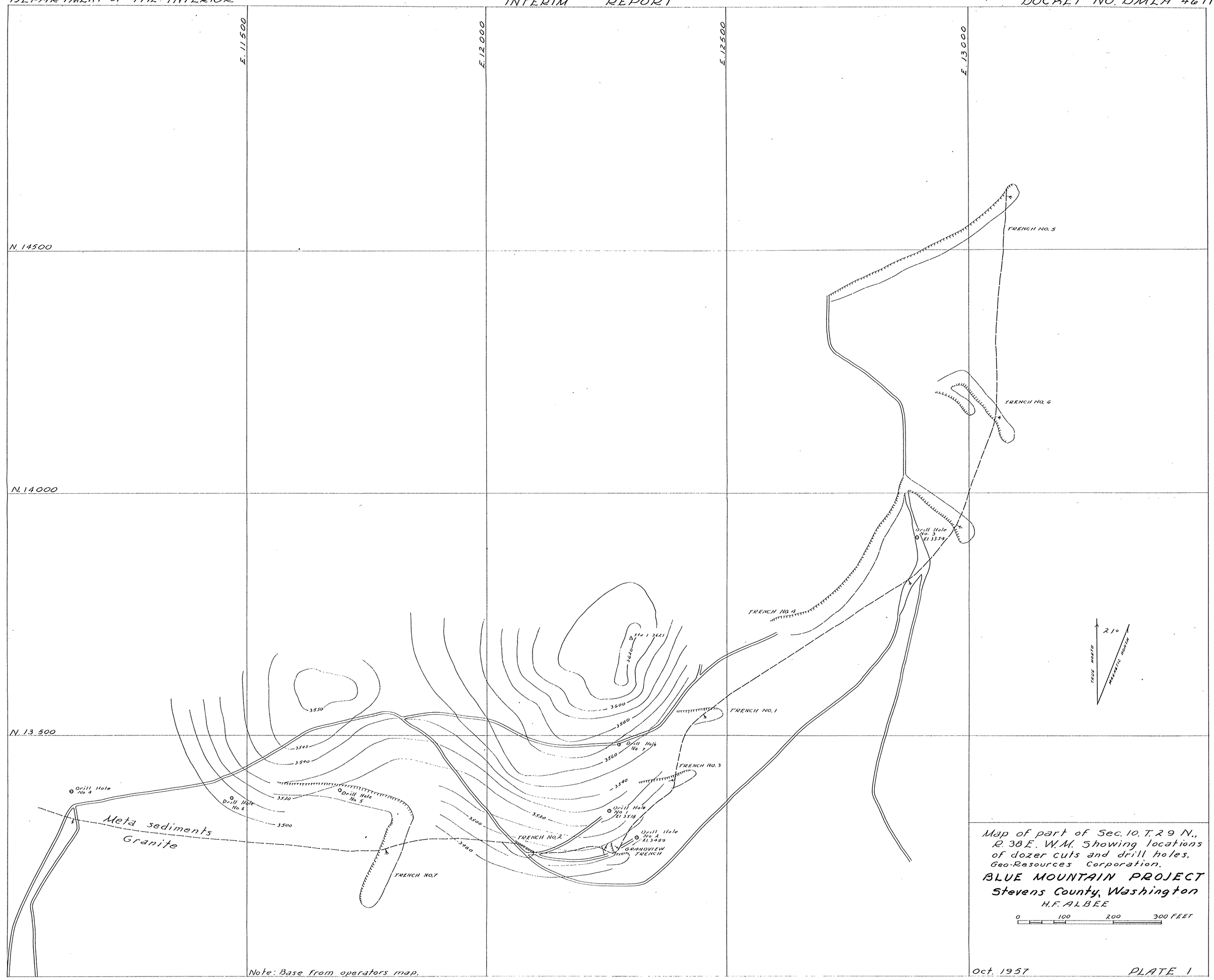



PLAN, SHOWING RECOMMENDED ACCESS ROAD,
TRENCHES, AND DIAMOND DRILL HOLES
GEO-RESOURCE CORP.
SEC. 10, T. 29 N., R. 38 E., W.M.
STEVENS COUNTY, WASHINGTON
400 0 400 FEET
H F ALBEE
Oct. 1958
PLATE 2
N
EXPLANATION
Contact (approximately located)
Tr 3
Bulldozer trench
150'
Diamond drill hole and depth
Access road
3000
3500
10
SEC. 9
SEC. 11
SEC. 10
SEC. 15
METASEDIMENTS
QUARTZ MONZONITE
Tr 1
Tr 2
Tr 3
Tr 4
Tr 5
Tr 6
Tr 7
200'
150'
100'
Access Road
Note: Modified from applicant's plate 8

UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
INTERIM REPORT

DOCKET NO. DMEA 4671



Map of part of Sec. 10. T. 29 N., R. 38 E. W.M. Showing locations of dozer cuts and drill holes, Geo-Resources Corporation.

BLUE MOUNTAIN PROJECT
Stevens County, Washington
H.F. ALBEE

Note: Base from operators map.

Oct. 1957

PLATE 1

GEO-RESOURCE CORP. SPOKANE, WASH.

BLUE MOUNTAIN PROJECT

Sec. 10 - T 29N - R 38E Stevens County, Washington

TOGO FORMATION
LOON LAKE GRANITE
ORE BODY

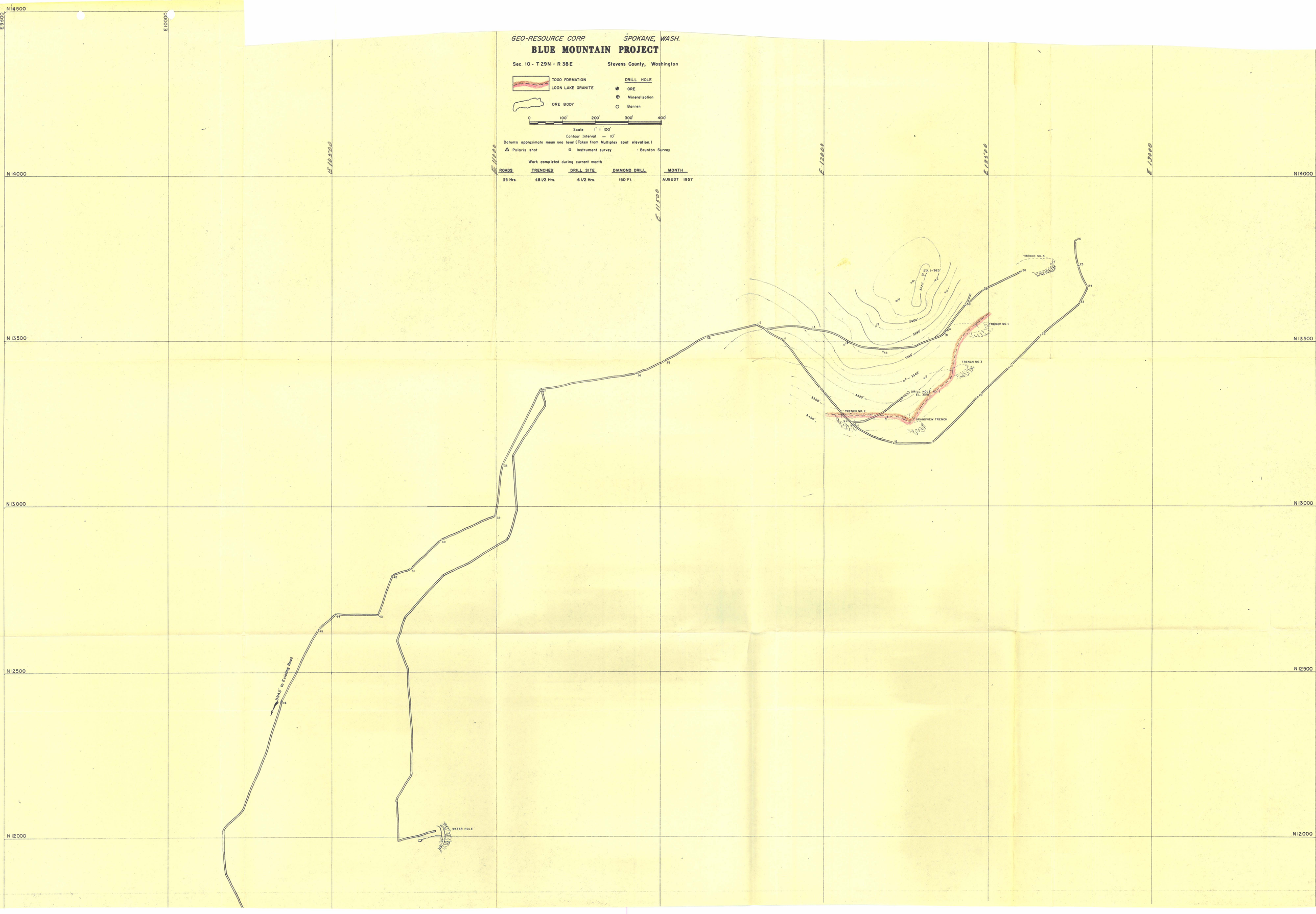
DRILL HOLE
ORE
Mineralization
Barren

0 100' 200' 300' 400'

Scale 1" = 100'
Contour Interval — 10'
Datum's approximate mean sea level (Taken from Multiples spot elevation.)
Polaris shot Instrument survey Brunton Survey

Work completed during current month

ROADS	TRENCHES	DRILL SITE	DIAMOND DRILL	MONTH
35 Hrs.	48 1/2 Hrs.	6 1/2 Hrs.	150 Ft.	AUGUST 1957



GEO-RESOURCE CORP. *SPOKANE, WASH.*

BLUE MOUNTAIN PROJECT

Sec. 10 - T 29N - R 38E **Stevens County, Washington**

TOGO FORMATION
LOON LAKE GRANITE
ORE BODY

DRILL HOLE
ORE
Mineralization
Barren

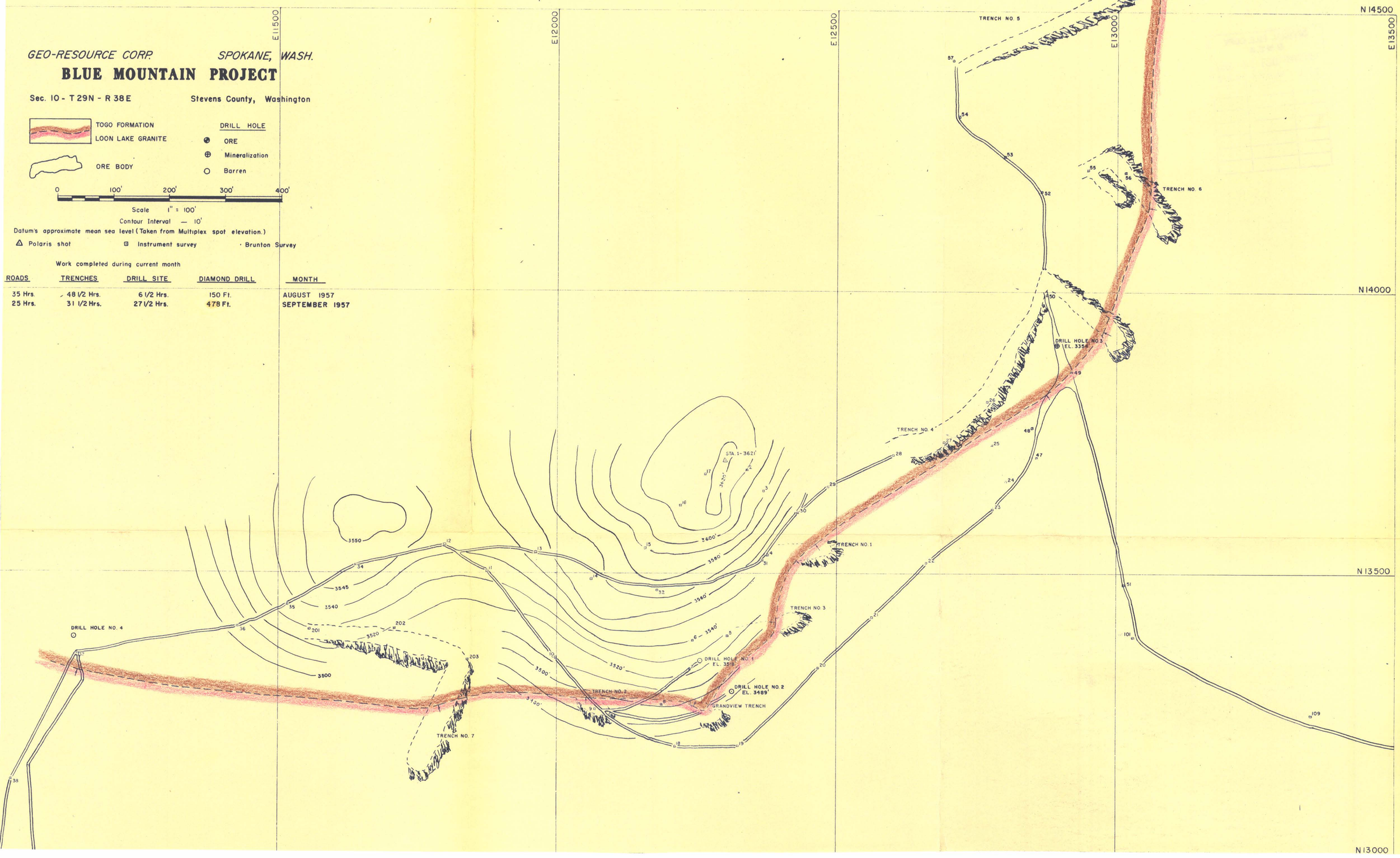
0 100' 200' 300' 400'

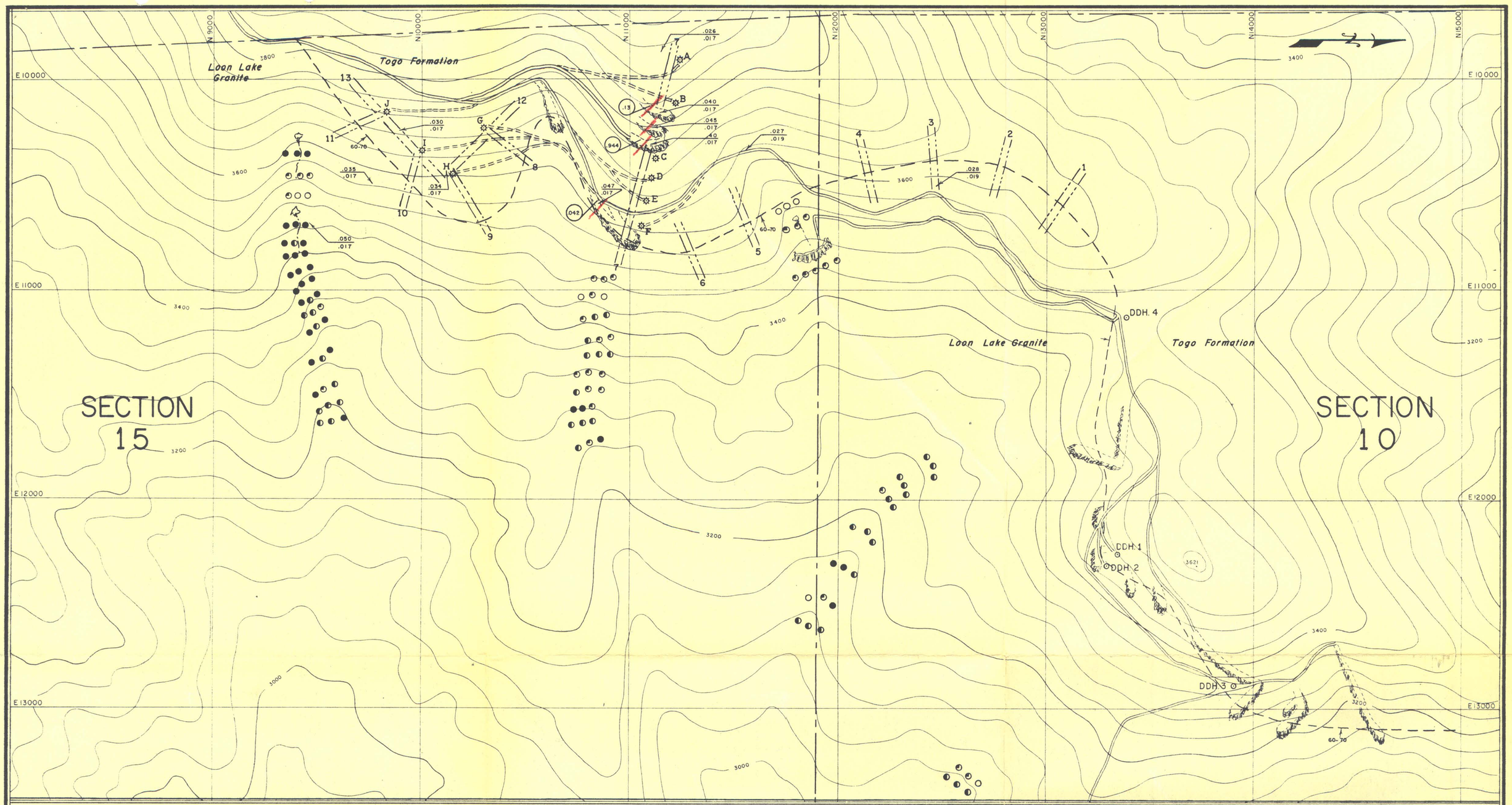
Scale 1" = 100'
Contour Interval — 10'
Datum's approximate mean sea level (Taken from Multiplex spot elevation.)

△ Polaris shot ⊡ Instrument survey · Brunton Survey

Work completed during current month

ROADS	TRENCHES	DRILL SITE	DIAMOND DRILL	MONTH
35 Hrs.	48 1/2 Hrs.	6 1/2 Hrs.	150 Ft.	AUGUST 1957
25 Hrs.	31 1/2 Hrs.	27 1/2 Hrs.	478 Ft.	SEPTEMBER 1957





LEGEND

GEOCHEMICAL SAMPLE STATIONS

- 3 ppm or Less
- 4 — 39 ppm
- 40 — 119 ppm
- 120 ppm or More

BULLDOZER TRENCH

- DIAMOND DRILL LOCATION
- .63 ASSAY — $_cU_3O_8$ in per cent
- .012 / .008 SPOT READING / BACK GROUND SCINTILLOMETER in MR/hr.
- MINERALIZED FRACTURE SYSTEM
- ROAD
- CONTACT — Togo Formation and Loon Lake Granite
- SPRING

PART OF THE

BLUE MOUNTAIN PROJECT AREA

Stevens County, Washington

0 — 1000' — 2000'

Contour Interval 40'
Based From USGS Quadrangle

LEGEND

PROPOSED EXPLORATION for Extension of Docket NO. DMEA 4671, Uranium Contract Idm-E 1114

- DIAMOND DRILL LOCATION
- ROAD
- BULLDOZER TRENCH

CARTOGRAPHY BY LEE PHILLIPS OCT 1957

GEO-RESOURCE CORP. *SPOKANE, WASH.*

BLUE MOUNTAIN PROJECT

Sec. 10 - T 29N - R 38E Stevens County, Washington

TOGO FORMATION
LOON LAKE GRANITE
ORE BODY

DRILL HOLE
ORE
Mineralization
Barren

0 100' 200' 300' 400'

Scale 1" = 100'

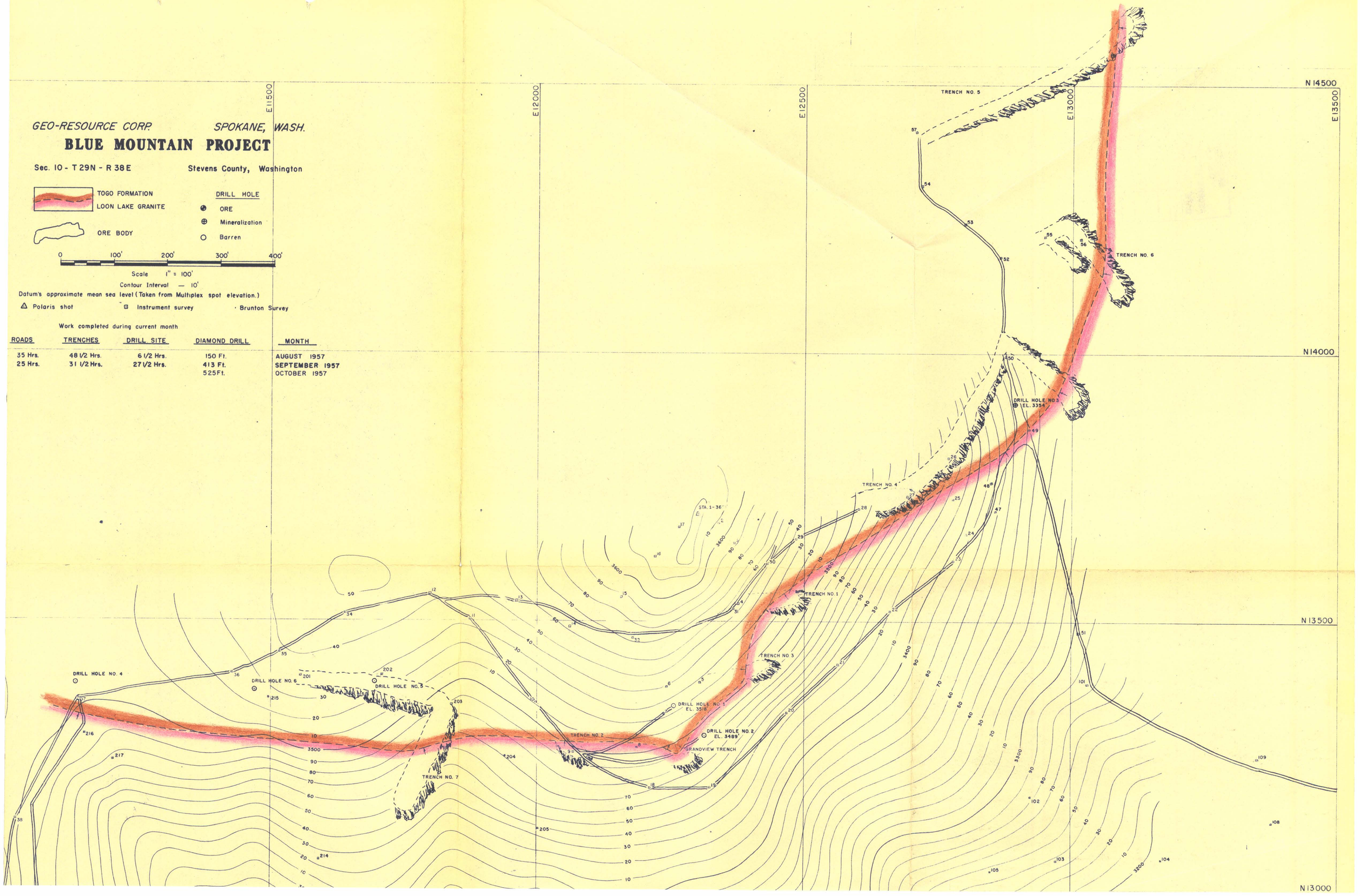
Contour Interval — 10'

Datum's approximate mean sea level (Taken from Multiplex spot elevation.)

△ Polaris shot ⊡ Instrument survey · Brunton Survey

Work completed during current month

ROADS	TRENCHES	DRILL SITE	DIAMOND DRILL	MONTH
35 Hrs.	48 1/2 Hrs.	6 1/2 Hrs.	150 Ft.	AUGUST 1957
25 Hrs.	31 1/2 Hrs.	27 1/2 Hrs.	413 Ft.	SEPTEMBER 1957
			525 Ft.	OCTOBER 1957



GEO-RESOURCE CORP. *SPOKANE, WASH.*

BLUE MOUNTAIN PROJECT

Sec. 10 - T 29N - R 38E Stevens County, Washington

TOGO FORMATION
LOON LAKE GRANITE
ORE BODY

DRILL HOLE
ORE
Mineralization
Barren

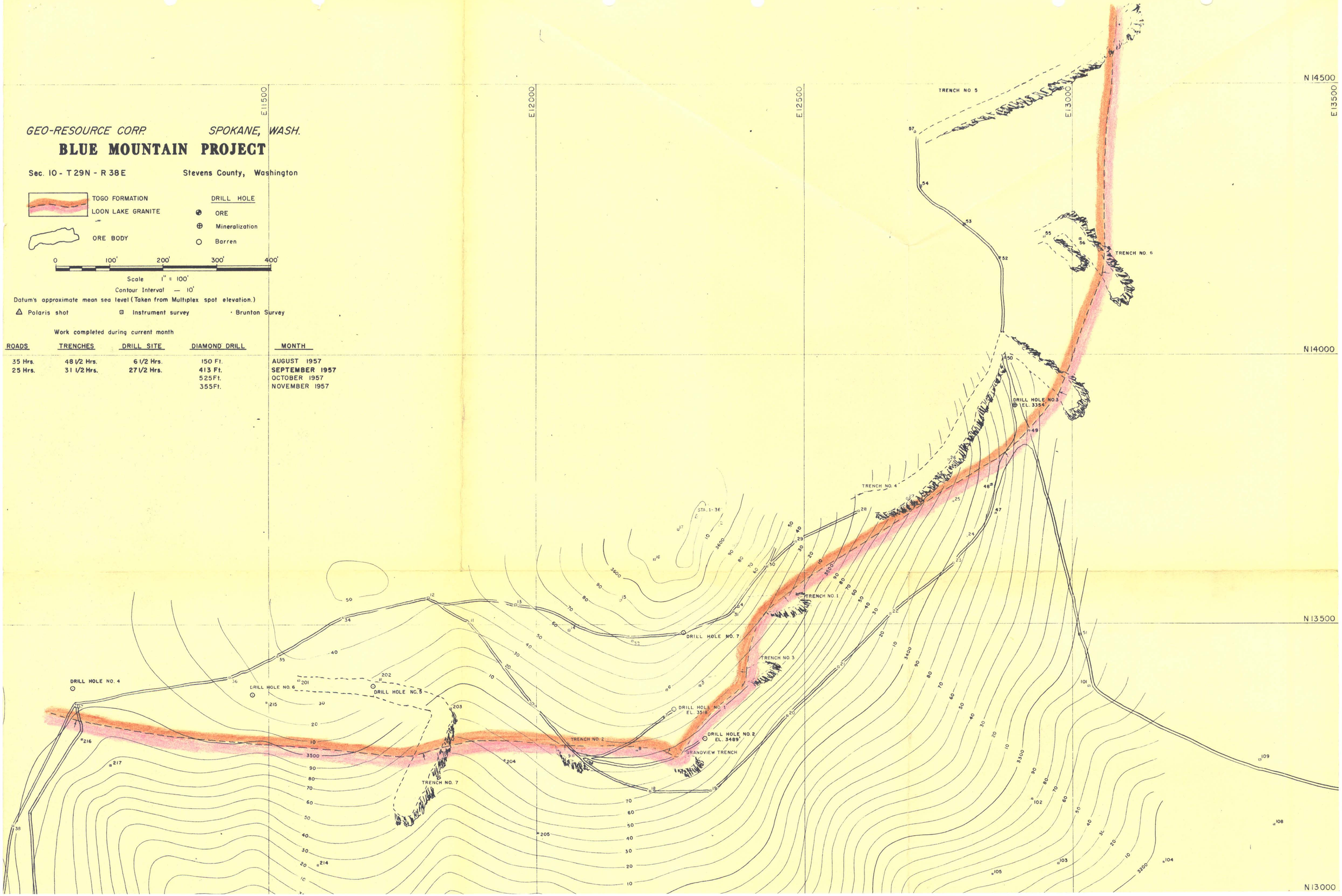
0 100' 200' 300' 400'

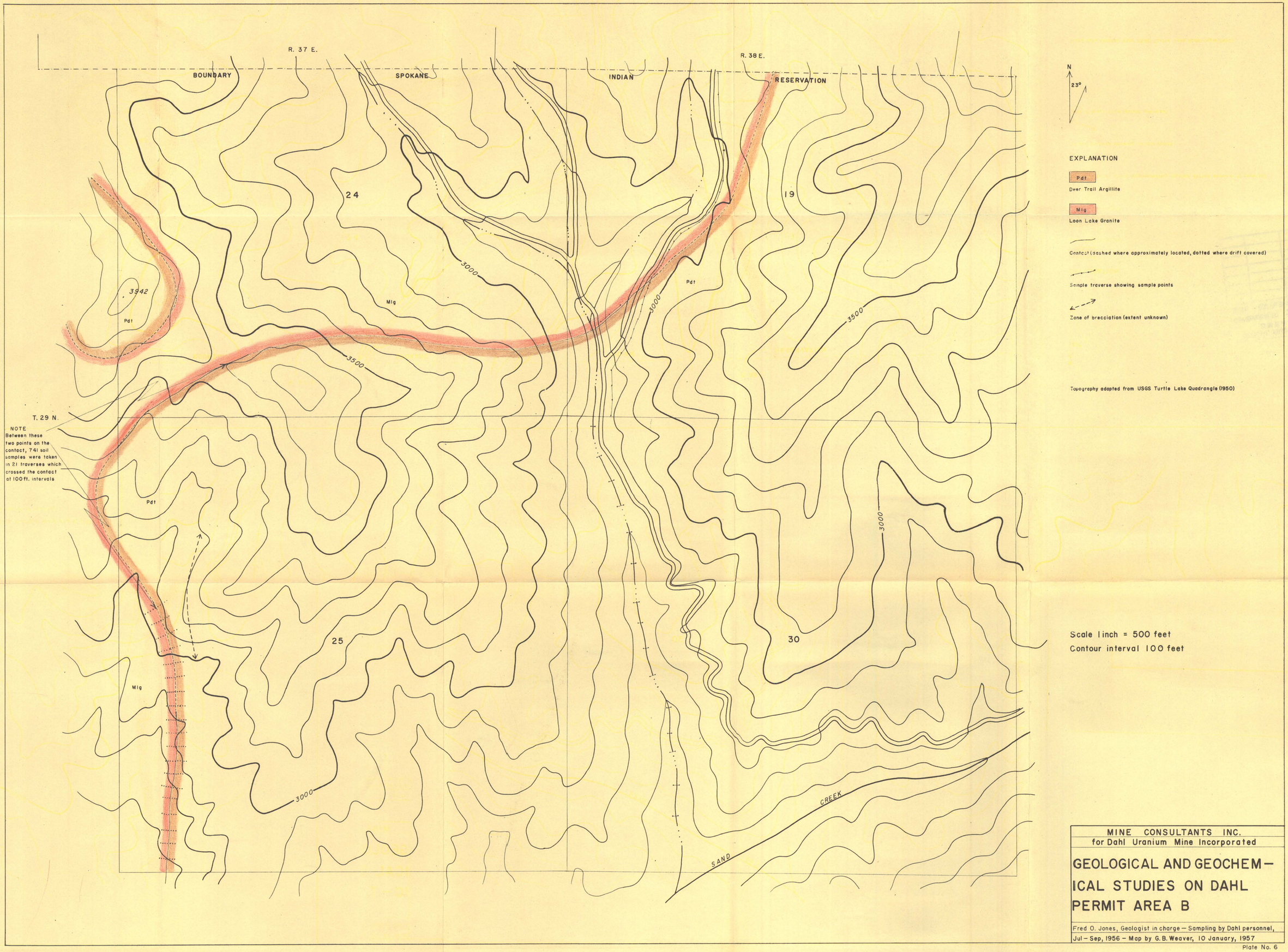
Scale 1" = 100'
Contour Interval — 10'
Datum's approximate mean sea level (Taken from Multiplex spot elevation.)

△ Polaris shot ⊡ Instrument survey · Brunton Survey

Work completed during current month

ROADS	TRENCHES	DRILL SITE	DIAMOND DRILL	MONTH
35 Hrs.	48 1/2 Hrs.	6 1/2 Hrs.	150 Ft.	AUGUST 1957
25 Hrs.	31 1/2 Hrs.	27 1/2 Hrs.	413 Ft.	SEPTEMBER 1957
			525 Ft.	OCTOBER 1957
			355 Ft.	NOVEMBER 1957



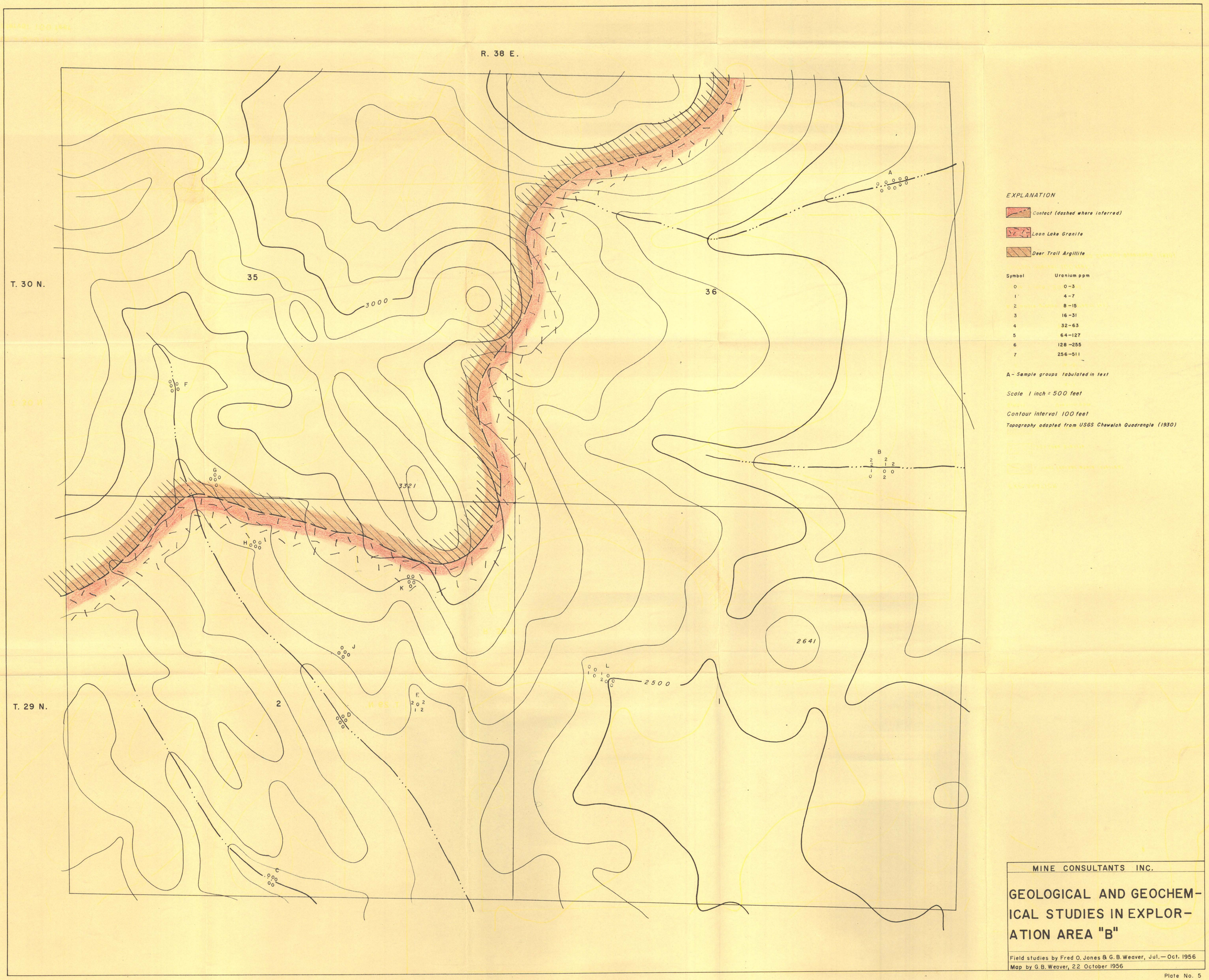


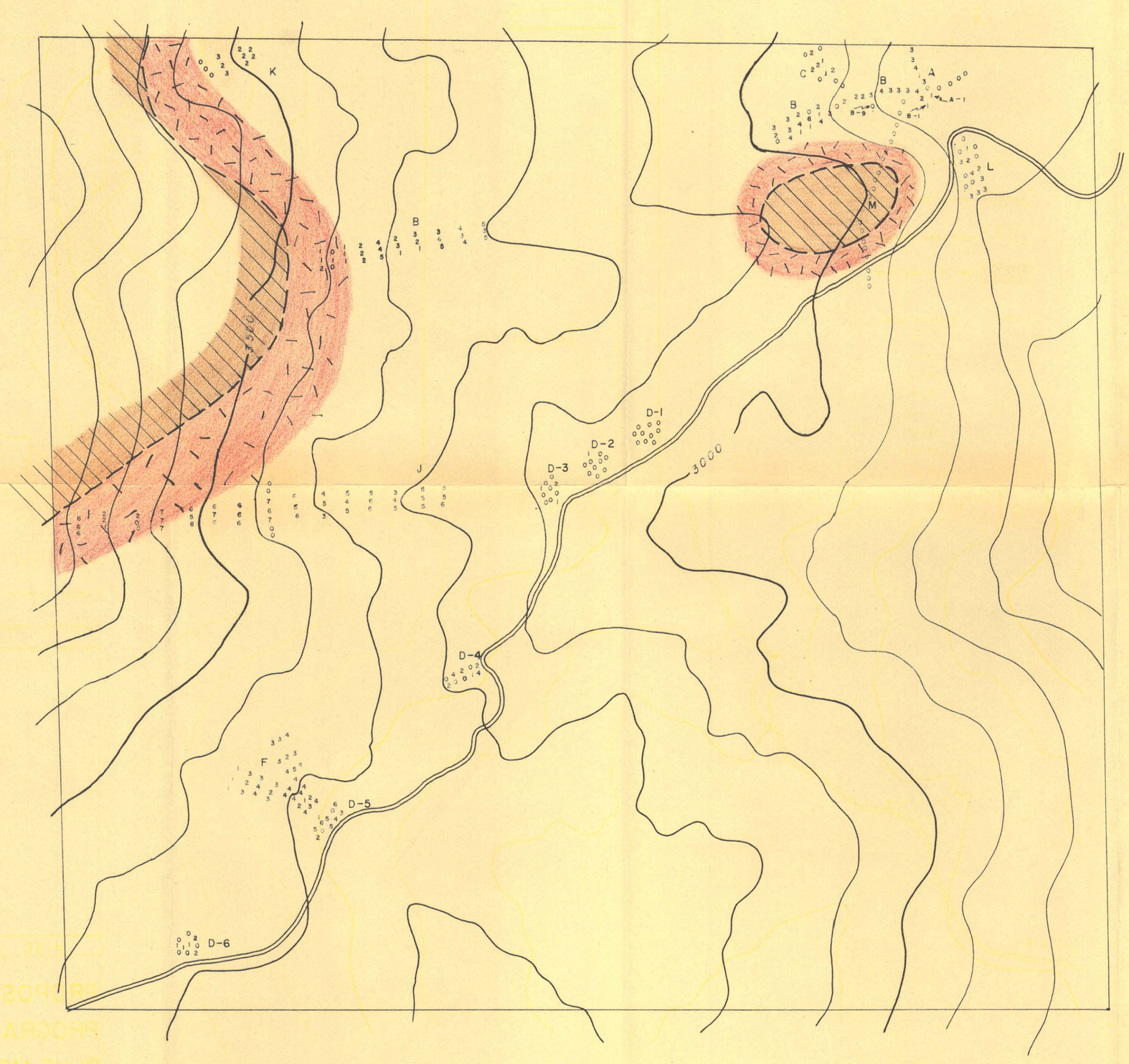
MINE CONSULTANTS INC.
for Dahl Uranium Mine Incorporated

GEOLOGICAL AND GEOCHEMICAL STUDIES ON DAHL PERMIT AREA B

Fred O. Jones, Geologist in charge — Sampling by Dahl personnel, Jul – Sep, 1956 – Map by G.B. Weaver, 10 January, 1957

Plate No. 6


R. 38 E.
T. 30 N.
T. 29 N.
35
36
2
1
3000
3321
2500
2641
A
B
C
D
E
F
G
H
J
K
L
EXPLANATION
Contact (dashed where inferred)
Loon Lake Granite
Deer Trail Argillite
Symbol Uranium ppm
0 0-3
1 4-7
2 8-15
3 16-31
4 32-63
5 64-127
6 128-255
7 256-511
A - Sample groups tabulated in text
Scale 1 inch = 500 feet
Contour interval 100 feet
Topography adapted from USGS Chewelah Quadrangle (1930)
MINE CONSULTANTS INC.
GEOLOGICAL AND GEOCHEMICAL STUDIES IN EXPLORATION AREA "B"
Field studies by Fred O. Jones & G. B. Weaver, Jul.—Oct. 1956
Map by G. B. Weaver, 22 October 1956
Plate No. 5



EXPLANATION

Contact (dashed where inferred)

Loon Lake Granite

Deer Trail Argillite

Symbol	Uranium ppm
0	0 – 3
1	4 – 7
2	8 – 15
3	16 – 31
4	32 – 63
5	64 – 127
6	128 – 255
7	256 – 511

A – Sample groups tabulated in text

Scale 1 inch = 400 feet

Contour interval 100 feet

Topography adapted from USGS Hunters Quadrangle (1950) – Sketched in generally in eastern third of section

DATE	REVISION	BY
27 Nov 56	Groups A & B corrected – Group designations chgd	GBW
14 Oct 56	Contact & Group J relocated	GBW

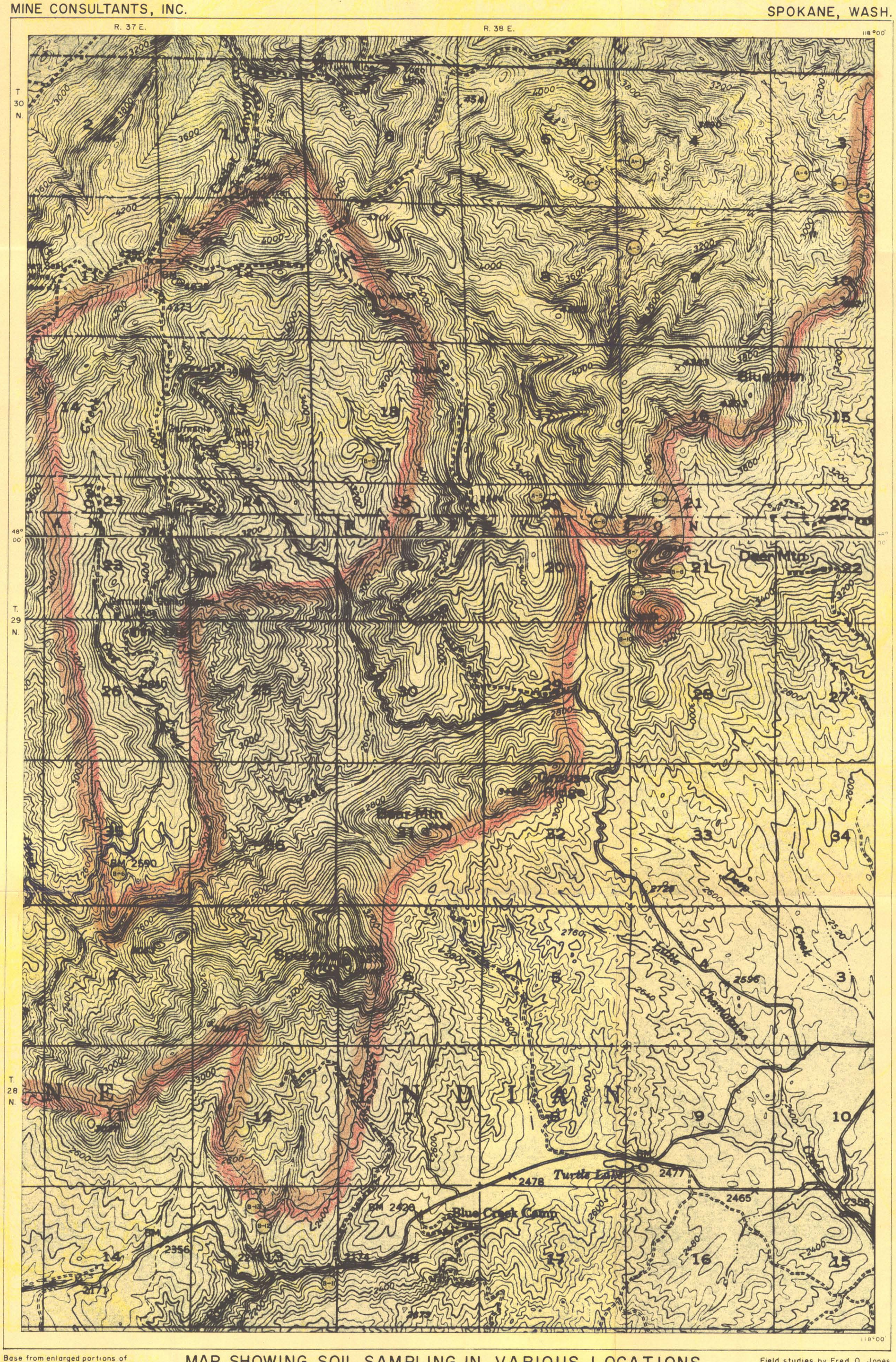
MINE CONSULTANTS INC.
for Universal Mining Corporation

GEOLOGICAL AND GEOCHEMICAL STUDIES ON SECTION 15, T. 29 N. R. 38 E. W. M.

Field studies by Fred O. Jones & G.B. Weaver, Jul.–Oct. 1956

Map by G.B. Weaver, 10 October 1956

Plate No. 4



Base from enlarged portions of USGS Turtle Lake & Hunters Quadrangles (1950)

MAP SHOWING SOIL SAMPLING IN VARIOUS LOCATIONS

SPOKANE INDIAN RESERVATION AREA

STEVENS COUNTY, WASHINGTON

Approximate Scale 1 : 31250

1 1/2 0 1 MILE

Contour Interval 40 feet

Datum is Mean Sea Level

N

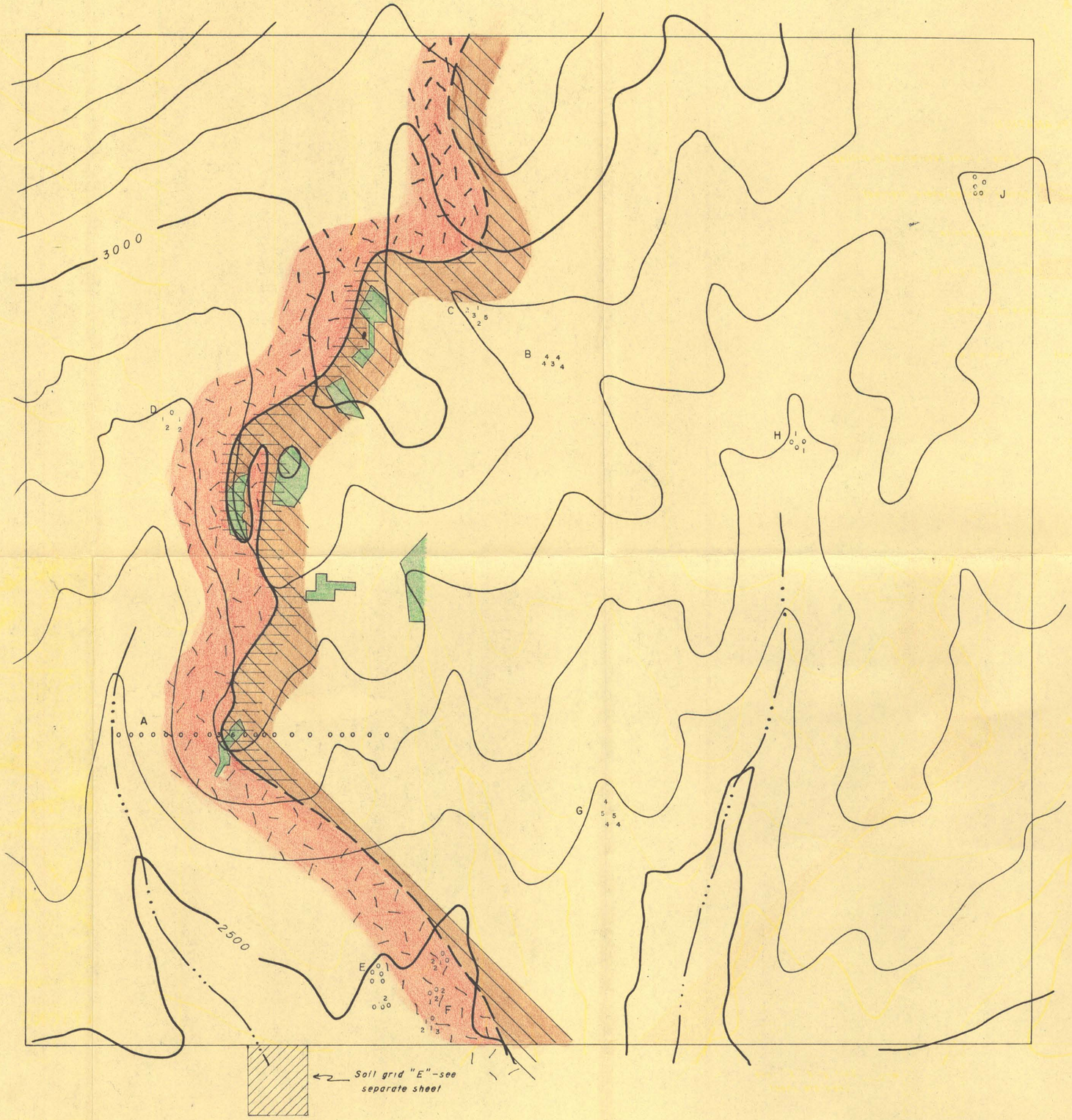
23°

APPROXIMATE MEAN DECLINATION, 1956

Field studies by Fred O. Jones & G.B. Weaver, 1956

Map by G.B. Weaver, 5 February 1957

Plate No. 7



N

EXPLANATION

- Ore Body (Limits determined by drilling)
- Contact (dashed where inferred)
- Loon Lake Granite
- Deer Trail Argillite
- Zone of alteration

Symbol	Uranium ppm
0	0 – 3
1	4 – 7
2	8 – 15
3	16 – 31
4	32 – 63
5	64 – 127
6	128 – 255
7	256 – 511

A – Sample groups tabulated in text

Scale 1 inch = 400 feet

Contour interval 100 feet

Topography adapted from USGS Turtle Lake Quadrangle (1950)

Geology after E.E. Thurlow, USAEC, from USGS Professional Paper 300, p.87

Plan of ore bodies taken from map of Midnite Mine by K. L. Preston for Midnite Mines Inc.

DATE	REVISION	BY
28 Dec 56	Ore bodies added — Location of Group A corrected	GBW
14 Oct 56	Groups F, G, H, and J added	GBW

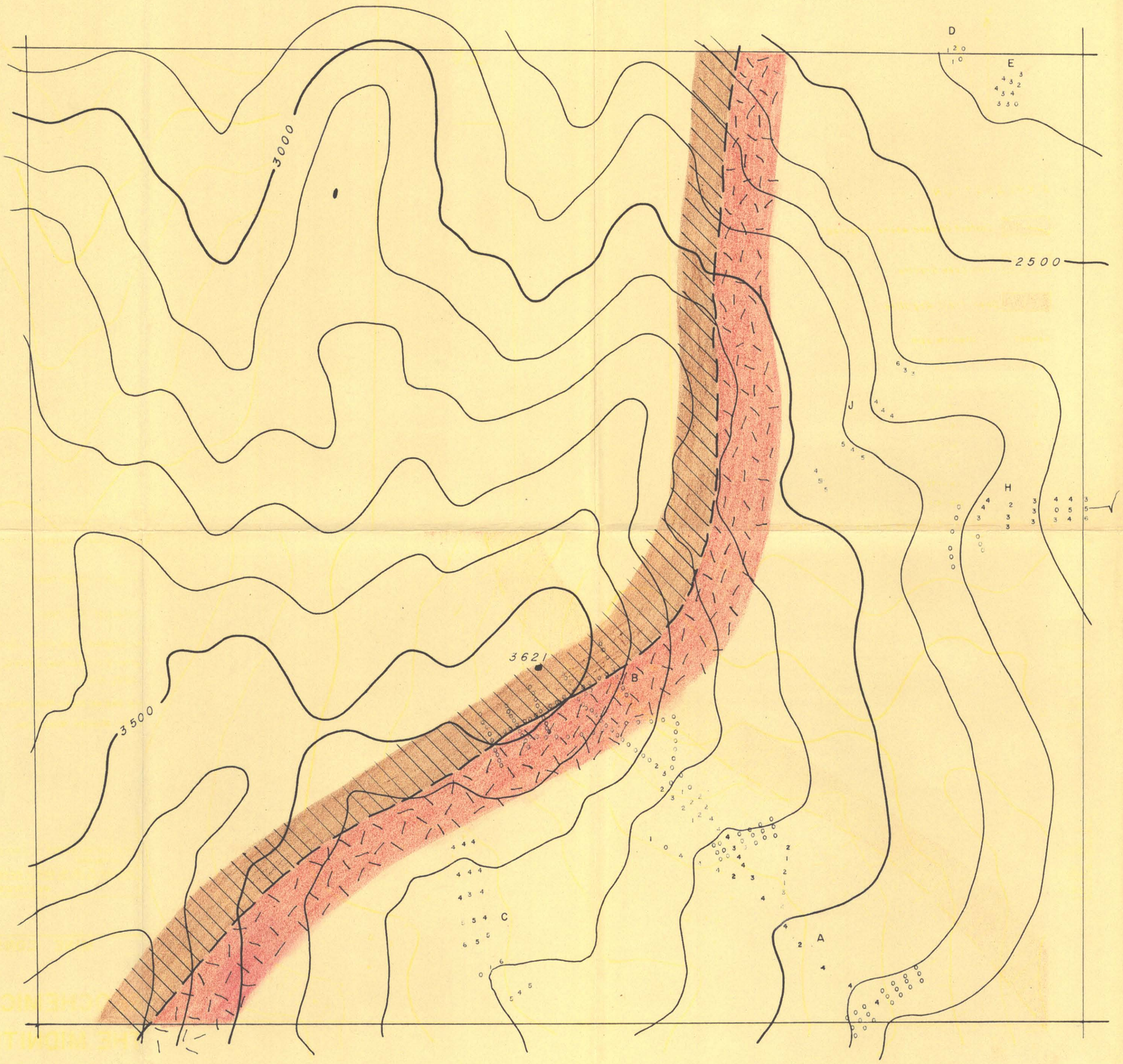
MINE CONSULTANTS INC.

GEOCHEMICAL STUDIES AT THE MIDNITE MINE — SEC. 12, T. 28 N. R. 37 E.W.M.

Field studies by Fred O. Jones & G.B. Weaver, Jun.–Oct. 1956

Map by G.B. Weaver, 9 October 1956

Plate No. 2



EXPLANATION

Contact (dashed where inferred)

Loon Lake Granite

Deer Trail Argillite

Symbol	Uranium ppm
0	0 – 3
1	4 – 7
2	8 – 15
3	16 – 31
4	32 – 63
5	64 – 127
6	128 – 255
7	256 – 511

A – Identification of sample groups tabulated in text

Scale 1 inch = 400 feet

Contour interval 100 feet

Topography adapted from USGS Hunters Quadrangle (1950)

Sketched in generally in eastern third of section

DATE	REVISION	BY
21 Nov 56	Groups A, C, and H corrected	GBW
14 Oct 56	Groups H and J added	GBW

MINE CONSULTANTS INC.

GEOLOGICAL AND GEOCHEMICAL STUDIES ON SECTION 10 – T. 29 N. R. 38 E. W. M.

Field studies by Fred O. Jones & G.B. Weaver, Jul. – Oct. 1956

Map by G.B. Weaver, 8 October 1956

Plate No. 3

Fwd w/ FT Letter 11-13-59

GEO-RESOURCE CORP. SPOKANE, WASH.

BLUE MOUNTAIN PROJECT

Sec. 10 - T 29N - R 38E Stevens County, Washington

TOGO FORMATION
LOON LAKE GRANITE
ORE BODY

DRILL HOLE
ORE
Mineralization
Barren

0 100' 200' 300' 400'

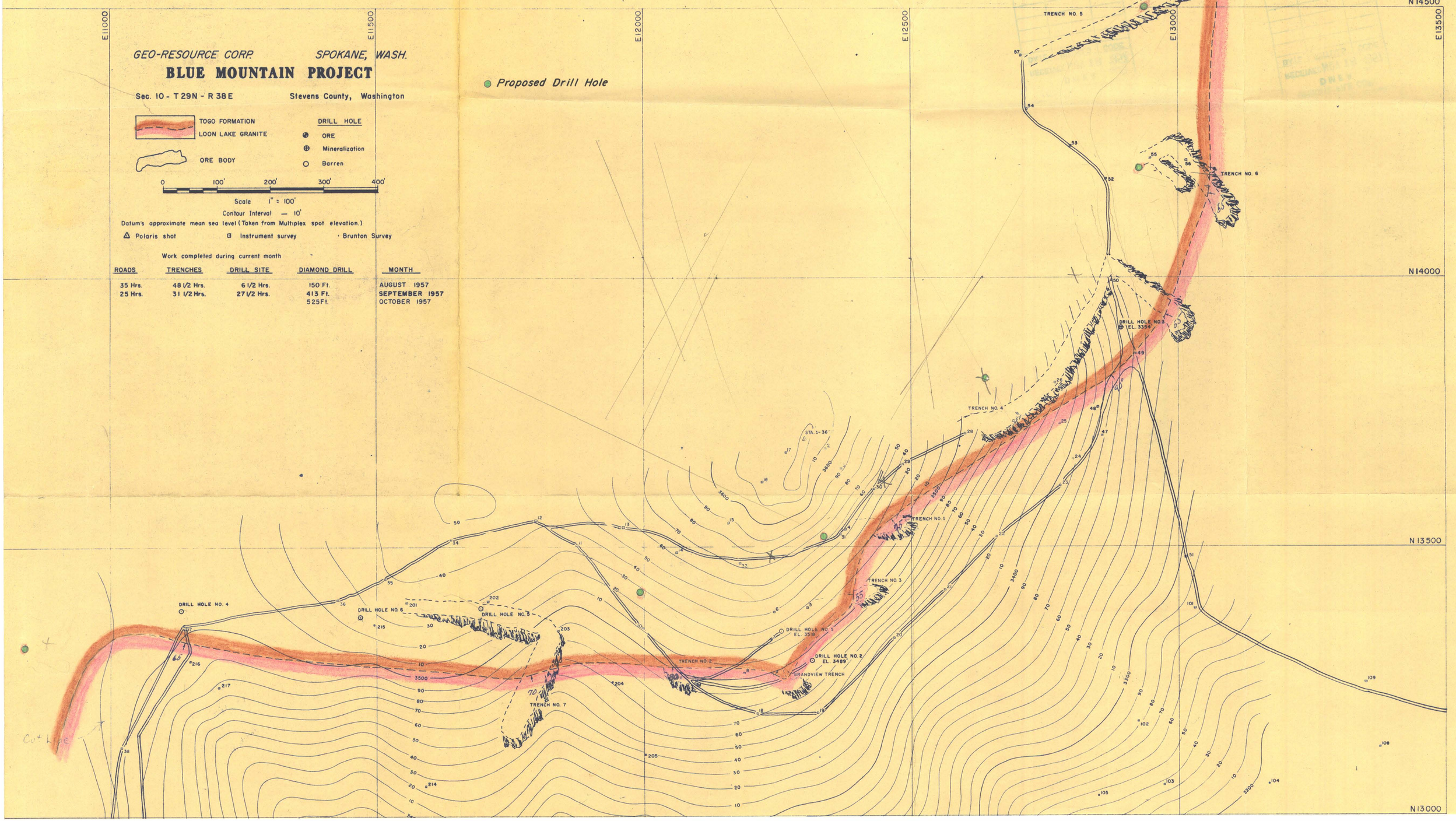
Scale 1" = 100'

Contour Interval — 10'

Datum's approximate mean sea level (Taken from Multiplex spot elevation.)

△ Polaris shot ⊡ Instrument survey · Brunton Survey

Work completed during current month

ROADS	TRENCHES	DRILL SITE	DIAMOND DRILL	MONTH
35 Hrs.	48 1/2 Hrs.	6 1/2 Hrs.	150 Ft.	AUGUST 1957
25 Hrs.	31 1/2 Hrs.	27 1/2 Hrs.	413 Ft.	SEPTEMBER 1957
			525 Ft.	OCTOBER 1957

Proposed Drill Hole