DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 5015

Application
- [ ] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [x] Application and attachments

Right Side

- [ ] Project summary (final)
- [ ] Work Comoleted analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports

- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

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

Folders No._____: Maps (Use pocket folder or envelope)

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

17963

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

May 6, 1958

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Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Loan Application (Uranium)
Oliver Armstrong, et al.
Armstrong, Vissing, Redrock Group
Washoe County, Nevada

Attached are three sets of MF-103, Application for Aid forms, relative to above subject. The fourth set has been retained in our files.

Please note that the applicant wishes some of the documents returned to him.

S. Ricker

Attachments

BUREAU OF MINES
WASHINGTON, D. C.
MAY 8 10 20 AM '58

Form MF–103
Revised Oct. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR

Budget Bureau No. 42–R1035.3
Approval expires June 30, 1958

DEFENSE MINERALS EXPLORATION ADMINISTRATION

APPLICATION FOR AID IN AN EXPLORATION PROJECT

PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

NAME OF APPLICANT (Full legal name and mailing address as it should appear on contract if one is executed)

Oliver Armstrong
2310 Hunter Lake Drive
Reno, Nevada

RECEIVED MAY 12 U.M.E.A.

APPLICANT NOT TO USE THIS BLOCK

Docket Number: DMEA-5018

Date Received: Reno 5/5/58 5-12-58

Government Participation %:

Region: II

Division Code: 700

BUSINESS ORGANIZATION (Check one)

- Individual [ ]
- Corporation [ ]
- Partnership [✓]
- Other (Specify) [ ]

State in which firm is organized:

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
Oliver Armstrong	2310 Hunter Lake Dr. Reno, Nevada	Partner
John ?Arden	2095 Hunter Lake Dr. Reno, Nevada	partner
R.A. Vissing	6737 Selma Ave. Hollywood Calif.	partner

Mineral(s) for which you wish to explore: U308

Estimated Cost of Project: $ 13,000.00

LOCATION OF PROPERTY

Name	County	State
Armstrong Vissing Bedrock	Washoe	Nevada

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order–I, Revised, "Government Aid in Defense Exploration Projects." To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 1, existing mine workings and geology in item 2, and the proposed exploration project in item 4. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 2(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest DMEA Field Office.*

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.

April 29 1958
Dated

Oliver Armstrong
BY *(Signature)*

Partner
Title

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

(a) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all land adjacent to the proposed project area which you own or control. Describe any part of the project land or workings which should not be subject to Government lien for royalty payments. If the land consists of unpatented claims, state the book and page number for each recorded location notice, including amended locations, and the place where recorded (courthouse, recorder's office, county, and state).

(b) State all the names by which you know the property.

(c) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise. If you are not the owner, submit with this application one exact copy of the lease, contract, or other document (with address of owner) under which you control the property.

(d) Describe all liens, mortgages, or other encumbrances on the property.

2. *Physical Description:*

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the lands, including existing mine workings. Describe all production facilities.

(b) State your interest, if any, in operations stated in 2*(a)*.

(c) State, as far as you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves on the property giving quantities and grades and sampling methods used, supporting your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you may have, indicating on each whether you require its return to you.

3. *Accessibility of Project:*

(a) To aid DMEA representatives who may be required to examine the property, state the name and address of the person who will meet the DMEA representative; give directions for reaching the property; and describe accessibility of the property including the mine workings.

(b) Name the shipping and supply points and places where employees reside and state the distances between them and the property.

4. *The Exploration Project:*

(a) Describe fully the proposed exploration project giving individual footages and sizes of openings *for each item of work.* Use narrative, maps, plans, and longitudinal and cross sections as necessary. Show the location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *property boundaries* or to the closest identifiable corner.

(b) If an access road to the project must be built, show the location on the property map and state the length, type, and construction methods proposed.

(c) In the event that an exploration contract with DMEA is executed, how soon will the work start and how many months will be required to complete it? State your anticipated average daily or monthly rate of progress for each type of work.

5. *Experience:*

State your operating experience and background with relation to your ability to carry out this exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of Costs:*

Furnish detailed estimates of the costs *for each item of the work proposed in 4(a)* under the headings listed below with a total for each heading and the estimated total cost of the project. Costs for any work to be performed by an independent contractor should be shown separately under category *(a)* below. Costs for any work that is not to be performed by an independent contractor should be given in detail under categories *(b)* through *(g)*.

(a) Independent contracts. State the cost of any proposed independent contract for the performance of all or any part of the work, expressed in units of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. *(Note* – If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. For necessary supervision, engineering and geological services, and labor, include an itemized schedule of numbers, classes, rates of wages, salaries or fees, and periods of employment. State whether these technicians and employees are available.

(c) Operating materials and supplies. List items of material and supplies with their cost. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of operating equipment to be used giving specifications and indicating how each item is to be acquired – i.e., rented, purchased, or provided by the applicant. If it is rented or purchased, state the estimated rental or purchase price. If it is to be furnished by the applicant, give its present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of necessary *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant, which will be used on the exploration project.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration project stating specifications and cost including labor, materials and supervision.

(g) Miscellaneous. For the operating equipment listed in 6*(d)*, describe the type and estimate the cost of repairs and maintenance expected during project operations. Do not repeat initial repairs listed in 6*(e)*. Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories.

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)* State whether you are prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation stated in Sec. 7 of DMEA Order–I, Revised.

(b) Explain to what extent you propose to furnish your share of the costs by providing money, by use of equipment owned by you, or otherwise.

* * * * *

INT.-DUP. SEC., WASH., D.C. 25960

1- a& b

CLAIM	NO	LOCATION DATE	CERTIFICATE OF LOCATION BOOK	PAGE
Armstrong	1	Sept. 26 1954	1	453
Armstrong	2	Dec. 27 1954	5	2
Armstrong	3	Ded. 31 1954	5	4
Armstrong4	4	Dec 31 1954	5	6
Armstrong	5	Jan 4 1955	3	169
Armstrong	6	Jan 6 1955	3	171
Armstrong	7	Jan 6 1955	3	173
Armstrong	8	Jan 6 1955	5	121
Armstrong	9	Jan 6 1955	5	123
Armstrong	10	Jan 6 1955	5	125
Armstrong	12	Feb. 11 1955	3	175
Armstrong	13	Nov. 26 1955	3	177
Armstrong	14	Feb. 24 1955	5	178
Armstrong	15	Feb. 25 1955	5	127
Armstrong	16	Feb. 25 1955	5	129
Armstrong	17	Feb. 27 1955	5	131
Armstrong	19	July 14 1955	15	214
Armstrong	21	Dec. 13 1954	1	491
Armstrong	22	July 14 1955	15	216
Armstrong	23	Sept. 14 1956	19	5
Armstrong	24	Sept. 14 1956	19	7
Vissing	3	Jan. 27 1955	5	180
Vissing	4	Jan. 27 1955	5	182
Vissing	5	Feb. 11 1955	3	179
Redrock	11	Feb. 26 1955	5	176
Redrock	12	Feb. 26 1955	5	133
Redrock	13	Aug. 29 1955	16	55
Redrock	14	Dec. 13 1956	19	115
Quitelaim Deedon Redrock #14(Mining Deeds)			392	101

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These Claims are recorded at the Washoe County Recorders Office in Reno, Nevada.

The work is to be done on four different claims, Armstrong #1 Armstrong #2 Armstrong #19 and Armstrong #21.

1- c Owners by location and work.
1- d None

2- Physical description

There is now on the property at Armstrong #1 a 40 foot shaft also a short cut (open pit) 25 feet long 18 feet deep and 8 feet wide; Also overburden remove with 4 buldozer cut across the Dike; Out of the 40 foot shaft there has been a 20 ton shipment of U308. This shipment went .33 U308 .

2- b Work done by owners and Leasers.
2- c Enclosed production sheet.
2- d Several thousands tons at.03 or better U308
Refer to list of assays in report.
2-e Deposited in vein and in Basalt Dikes also in Rhyolite beddings.
2- f Hydrothermo action associated with the intrusive Basalt Dikes.

2- a) Enclosed Homestake Report.

3- Accessibility Of Project
(a) Contact Oliver Armstrong 2310 Hunter Lake Drive Phone FA 91637, or John Arden 2095 Hunter Lake Drive Phone FA 23188; Reno, Nevada : Either partner will accompany representative to the property.

(b) The shipping point is at Sutcliffe Nevada at Pyramid Lake being about five miles from the mine.
Employees will travel 35 miles from Reno Nevada to the property.

4- The Exploration Project;
(a) Plan to drill 20 holes from 100 to 200 feet deep, on Armstrong #1 intend to put down 12, inch and one half holes. about three in the bottom of the 40 foot shaft to follow the dike to the greatest depth possible also to determine the values of the Rhyolite on the hanging and foot walls; Also on Armstrong #1 plan to cut the dike with drill holes from the canyon on the south east; with drill holes of about 150 feet should be able to cut the Dike in a number of places at the depth of 100 feet or more.
Also north of the 40 foot shaft there are indications of U308 in the bleeched Rhyolite assays of .12 and in the dike spots that will assay .50 U308 ; on the north end the Dike faults and also shows a great amount of Opalite;(Check the shipments from the(Lowary Claims) His best U308 comes in a combination of Opal and Basalt Dike. On this north end plan to put down 3 or 4 drill holes .
On Armstrong #2 there is a fault zone that shows a slight amount of U308 in this area plan to put down 2 or more drill holes.
On Armstrong #21 there is a Basalt Dike that has spots of U308 that will assay .16 Have had some samples that would assay .50 U308. This is a very promising Dike ; plan to put down 4 drill holes on this Dike. Can be cut at about 100 feet ; with about 100 feet of drill hole.
On Armstrong #19 plan to put down 2 drill holes of 150 feet or more; This also is a Basalt Dike it is in a large fault that comes from the south west directly thru (Lowary Claim #7) to the Granite Plug Just north of Armstrong #1 .

(b) Jeep road already to property .

(c) Two weeks after loan is approved ; the work should require about four months to complete.
Should average thirty feet a day with a daily expense of $114.00

5- Experience
Mining experience only.

6- Estimate Of Cost
Mining costs to consist of one supervisor and two laborers. Gas and oil, grease, and machinery repairs; plus occasional geological or mining engeneer supervision; along with bulldozer work to remove over burden.
Plus insurance costs.
(a) None
(b) One supervisor at $22.00 per day 2 laborers at $20.00 a day for five days time and a half for over time.
Geological or mining engeneer at $125.00 day; Supervisor and laborers work 4 months, the engineers work about 2 days out of each month.

6- (c) Gas oil and grease about $7.00 per day, anticipated loss of drill bits 10 at $30.00 each

(d) Drilling equipment called (Mighty Midget) from Houston tool co. 1 small buldozer (Clark Air Borne) Two ton crawler 10 inch tracks, with five foot hydrilic blade. 1 air compressor; 1 gasoline 90 pound drill. 1 Jeep ; 1 ton and half ford truck to haul buldozer.

Drilling equipment	$2400.00
Buldozer	2000.00
Aircompressor	800.00
Gasoline Drill	700.00
Jeep	500.00
Ton & Half Truck	400.00
Nucliometer	500.00
Geiger Counter	100.00
	$7400.00

(e) Maintenance and repair on all movable equipment $10.00 per day.
(f) No buildings
(g) Insurance $10.00 Per day.
(d) Nevada Industrial Ins. $5.30 per Hundred
Payrool taxes 4.95 per hundred

7- (a) We are prepared to furnish our share of the costs.
(b) To furnish equipment money and labor.

These Claims are located in Washoe County Nevada; T. 24 N. R.21 E. Section 31 & 32 ; and T.23N. R21 E. Section 5 & 6.

March 1, 1955

Armstrong Lease, Washoe County, Nevada
With Homestake Mining Co. Lead South Dakota

The property under lease is located in the Virginia Mountains about 26miles northeast of Reno Nevada. It is reached by driving on Nevada State Hiway No. 33 for 25.5 miles, thence west and north west for about 4 miles. The last mile is suitable for 4-wheel drive vehicles only.

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Ownership

The claims are held by the following people;

R.A. Vissing (1/3) Hollywood Calif.
John Arden (1/3) Reno, Nevada
Oliver Armstrong (1/3) Reno, Nevada

Description of property

Three groups of claims comprising the holdings; one group of 57 claims(Armstrong, Vissing and Redrock), one group of 6 claims (Arden), and one group of 2 claims (Estes). The accompanying claim maps show the large group and the arden group. The two Estes claims are about 1 1/2 miles northwest of the arden group, Sec. 24, T. 24 N. R. 20 E.

All claims were staked by the owners with taps and compass. many inaccuracies are no doubt present due to the rough terrain. No land survey corners were found. The claims are described in reference to prominent landmarks.

Status of the claims is shown by the accompanying "Listof Claims".

Terms of Agreement

For the consideration of $2,500.00 the company has until June 1. 1955 to carry on exploration work, stake any additional claims wanted dig location pits on such clains as desired. If the company desires to keep the agreementin force, $5,000.00 must be paid on Junel, 1955. On Dec. 1, 1955, if the company decides to take up the lease, an advance royalty of $2,000.00 per month must be paid. Royalty on production is to be 10% on ores assaying less than 0.5010% U308, 20% on ores assaying less than 1.001% U308 and more than 0.5009% U308, 30% on ores assaying more than 1.009% U308. All royalities are to be applied to a $1,500,000.00 purchase price. The term of t the lease is for 10 years with renewal privilages for another 10 year period.

The foregoing rates are applicable on ore produced from 21 claims only. These are Armstrong 1 through 17, Armstrong 21 and Vissing 3,4 and 5 On allother claims staked by the same people within a 5 mile radius of Armstrong No.1 one half of the above rates will apply To date 34 additional claims have been staked, for which Oliver Armstrong and Royal Vissing were paid $423.00.

Work Done by Homestake

Before the start of work by Homestake, location pits had been dug on only two claims, Armstrong No. 1 and Armstrong 21. Our work has consisted of building one mile of jeep road to Armstrong No. 1 discovery, digging five exploration cuts and one small trench. Blasting was necessary in digging 3 of the cuts. Location holes were dug on 8 claims including Arden 3 and 4 (see List of Claims).

Cost

In addition to the $2,500.00 payment to the owners we have spent about $1,550.00 for exploration work, road building, claim staking etc.

Geology

Volcanic rocks are predominant. They consist largly of thick beds of rhyolite tuff of red, gray and buff color. They range from soft ash to hard well cemented tuff. Individual beds appear to vary considerably in thickness over short distances. Large scale faulting with tilting of some blocks has taken place.

Several widely separated basalt dikes cut through the rhyolite tuff in different directions. Similar rock also occurs as sills and irregular masses between and in the rhyolites.

Mineralization

No uranium minerals were definitely recognized. At one place near the pit on Armstrong No. 1 claim, a yellow amorphous coating seems to supply the radioactivity. In a shallow pit on Armstrong 21 claim the radioactivity may be due to a dark green amorphous coating on joint cracks. Uranium mineralization is confined to fracture zones in or near basalt dikes. Four occurrences found are all closely associated with the dikes . Some dike like bodies of basalt have no associated radioactivity but have a lower count than the surronding tuff.

Bleaching of the rhyolite is common around the mineralized dikes. The red rock is bleached to pink or white. At Arden land 2 the gray agglomeratic tuff is bleached to a light yellow near the dike.

Description of Occurrences

Armstrong #1 Claim

The discovery on this claim seemed to offer the best chance of developing uranium ore in commercial quantities. Here the owners had sunk a 9 foot hole on a marrow fracture zone in a basalt dike (see map and section). The fracture zone is at the contact of the basalt and rhyolite tuff at the surface but passes into the basalt a few feet below. The best samples came from a 6 inch crushed zone in the basalt at the intersection of the two main fractures. The fracturing may be related to an offset in the dike at this point but the mineralization does not extend into the rhyolite tuff.

An earlier sample taken by Meador contained 2.731% U308. One taken by Henshaw lower in the pit contains 0.46% U308. Samples taken by Slaughter(2,3,4) Contain 2.382%, 1.220% and 0.337% U308(see sample list and cross section of pit). A two foot sample of basalt east of the fracturing taken by Henshaw contains only a trace of uranium. A 2.2 foot sample of basalt west of the fracture contains 0,041% U308 (23).

Outside the discovery pit, few samples of interest were obtained. Sample No. 10 (see map) is in a broken zone at the east side of the basaltdike. it is two feet long and contains 0.266% U308. Most of this length is in red and yellow stained rhyolite. Sample No.12 contains 0.137% U308 over 9 inches of fracture and stained basalt. All other samples taken in the dike and in the adjacent rhyolite are quite low in uranium.

The thickness of the rhyolite tuff is judged to be about 200 feet in this area.

Armstrong 21 claim

Shallow trenches were dug by the owners along fractures zones in a basalt dike. A sample taken by Henshaw over 4 feet of basalt contains 0.005% U308. A selected sample of a few pieces picked from a narrow fracture zone contains 0.168% U308.

Arden 1 and 2 Claims

Outcrops of faulted sections of a basalt dike are shown on the map of the Arden Claims. Narrow fracture zones contain some uranium. Samples 1,7 and 9 contain 0.172% , 0.182% and 0.018% U308. A sample of light yellow tuff near this dike contains 0.007% U308.

Estes 1 and 2 Claims

A recently discovered basalt dike of abnormally high radioactivity in spots was covered by these two claims. A sample from the best place contains only 0.021% U308. Buff colored rhyolite tuff near the dike contains 0.008% U308.

Uranium in the Rhyolite Tuff

Two earlier samples of bleached rhyolite tuff near Armstrong No.1 pit contain 0.071% and 0.068% U308. In comparison, a red unbleached specimen from the same locality contains 0.035% U308. However , 7 later samples of light colored tuff, some adjacent to the basalt dike at Armstrong No.1 contain an average of 0.023% U308. Three samples of red rhyolite from more widely scattered places average 0.010% U308.

Conclusion

Work was concentrated on the Armstrong No.1 claim because the strongest mineralization was found there. It was felt that if nothing of interest could be proven at this location, the other lower grade spots of mineralization offered still less chance.

Conclusions reached are as follows;

1. Uranium mineralization is closely related to basalt dikes.

2. Dikes are very low in uranium except in some places where they are fractured and faulted. The mineralized fractures are very narrow.

3. The rhyolite tuff in the area contains some uranium, enough to give a considerably higher than normal background reading on a counter. There is not a consistent difference in the uranium content of the red and light colored tuffs. The average of samples taken is too low to make the tuffs of economic interest.

4. The high grade fracture zone on Armstrong Nol claim is proven to be of very limited extent on the surface.

Recommendations

Recommendations

Some effortkkk should be made to test the high grade spot on Armstrong No 1 at some depth. This can be done,(1) by sinking right on the fracture zone, (2) by driving a short adit under the pk pit and doing some cross-cutting, and (3) by inclined diamond drill holes.

Sinking would be slow and would require more equipment than the other methods, hoist, headframe, buckets, ect. Timbering and ladders would be required. Cost per foot would be $80.00 to $100.00

An 80 foot adit would be needed to get 40 to 50 feet below the mineralized spot. some cross-cutting would probably make kkkkkk the total about 100 feet at a cost of about $3,000.00.

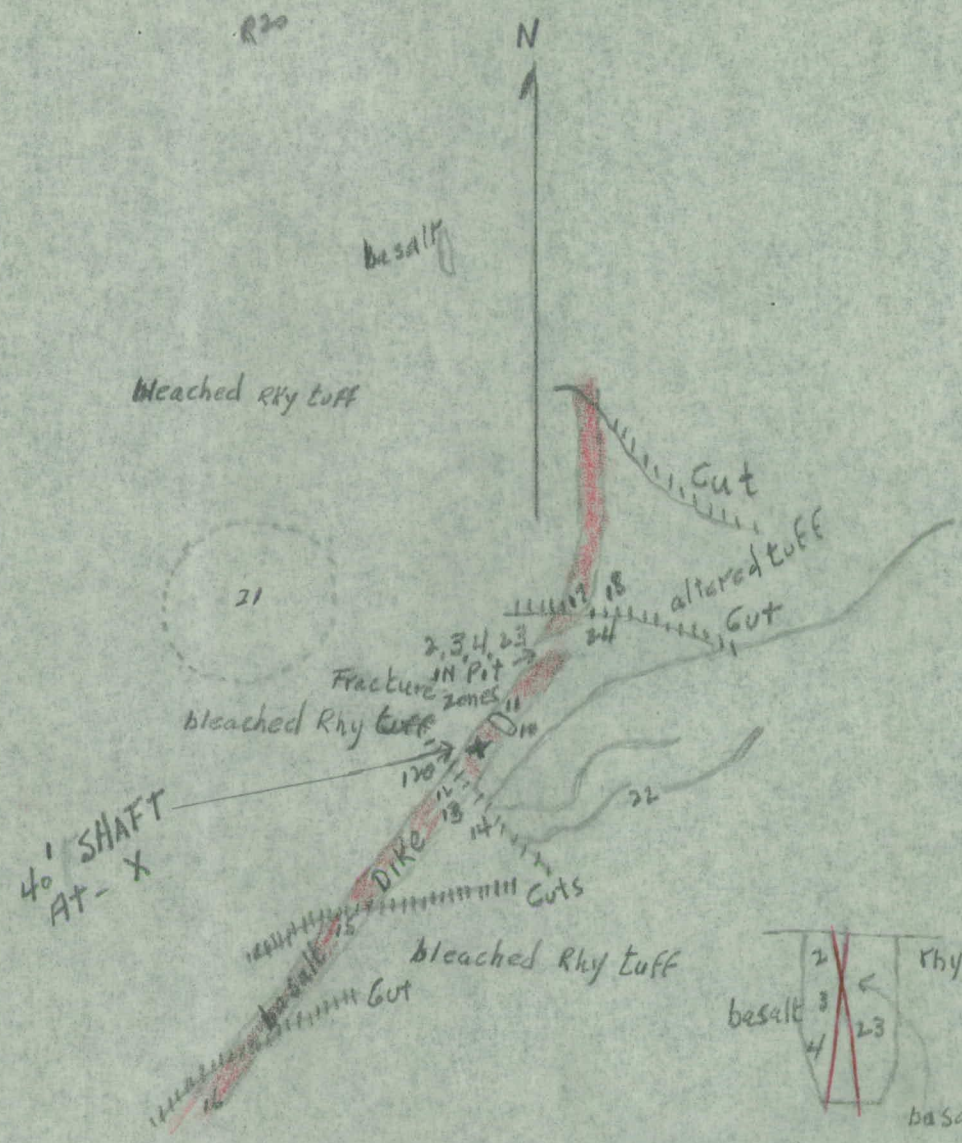
Diamond drilling would be the cheapest but the least satisfactory meathodof obtaining information and samples. Several holes totaling about 300 feet would cost $1,200.00 to $1,500.00. However, the amount of water required for drilling would make it neccessary to build a better road into the site. The advantage of lower cost would probably just about be cancelled.

Driving a short adit would appear to be the most satisfactory.

A.L. Slaughter
Exploration Geologist.

LIST OF SAMPLES

Sample No.		Description	U308
Meador	#1	5"6" shear zone 0-48 depth Armstrong #1	2.731
"	#2	Bleached rhyolite 30' w.of vein	0.071
"	#3	Rhyolite 20000'E. of pit	0.034
"	#4	Rhyolite 95' N.W. of pit	0.032
"	#5	Rhyolite 5280' S. of pit	0.028
Henshaw		2', basalt on E.side of fracture, Armstrong Nol	trace
"		2' Rhyolite on N.W. side of fracture	0.005
"		6" Crushed basalt between fractures	0.46
"		4.0' Basalt dike Armstrong 21	0.005
Arden	#1	Arden disc. 1" fracture zone in basalt	0.172
Armstrong	#2	Fracture zone in pit Armstrong #1 claim 2.0' by 2"	2.382
"	#3	2.7' along same zone 2" -5" wide	1.220
"	#4	2.8' along same zone 1.5"-2" wide	0.337
"	#5	pc. of bleached rhyolite tuff near pit on Armstong #1	0.068
"	#6	pc of red tuff same general area	0.035
Arden	#7	1.0' along fracture in basalt 3" wide on Arden claim No 2	0.182
"	#8	Scattered pcs. light yellow bleached tuff near basalt dike, Arden Nol claim	0.007
"	#9	1.08 along fracture zone 3-6" wide Arden No. 2 claim	0.018
Armstrong	#10	2.0' Armstrong Nol claim fractured and altered rhy. and basalt	0.266
"	#11	6.0' Basalt dike	0.021
"	#12	9" west side basalt dike	0.137
"	#12a	pcs. of rhy. over 3' width w. of dike	0.015
"	#13	6.0' Basalt dike	0.025
"	#14	pcs. of rhy. over 3' width E. of Dike	0.022
"	#15	6.5' basalt dike	0.012
"	#16	5.5' basalt dike	0.024
"	#17	6.5' basalt dike	0.031
"	#18	3.0' highly altered rhy.	0.021
"	#19	5.0' basalt dike	0.016
"	#20	red stained white rhy. from pit (see map)	0.028
"	#21	pcs. white rhy. from 50' circle (see map)	0.029
"	#22	pcs white rhy from rim E. of pit (see map)	0.030
"	#23	2.2' basalt W of fracture in pit (see map)	0.041
"	#24	4.0' fracture rhy. in pit	0.072
"	#25	pcs. of basalt along fracture Armstrong 21 claim	0.168
"	#26	pcs from ash bed between Armstrong #1 and Armstrong #21 claims	0.013
"	#27	pcs of red and buff rhy. tuff W. of Armstrong Nol in canyon	0.009
"	#28	2.0' across fracture zone in white tuff near W. side denter Armstrong ? Nol claim	0.020
"	#29	pcs red tuff near S. center Armstrong 5 claim	0.012



Plan
Scale 1" = 50'

Cross section So. Wall of pit Facing So.
Scale 1" = 10'

Armstrong No. 1 Claim
Geology Exploration Work. Sampling
Feb 23, 1955

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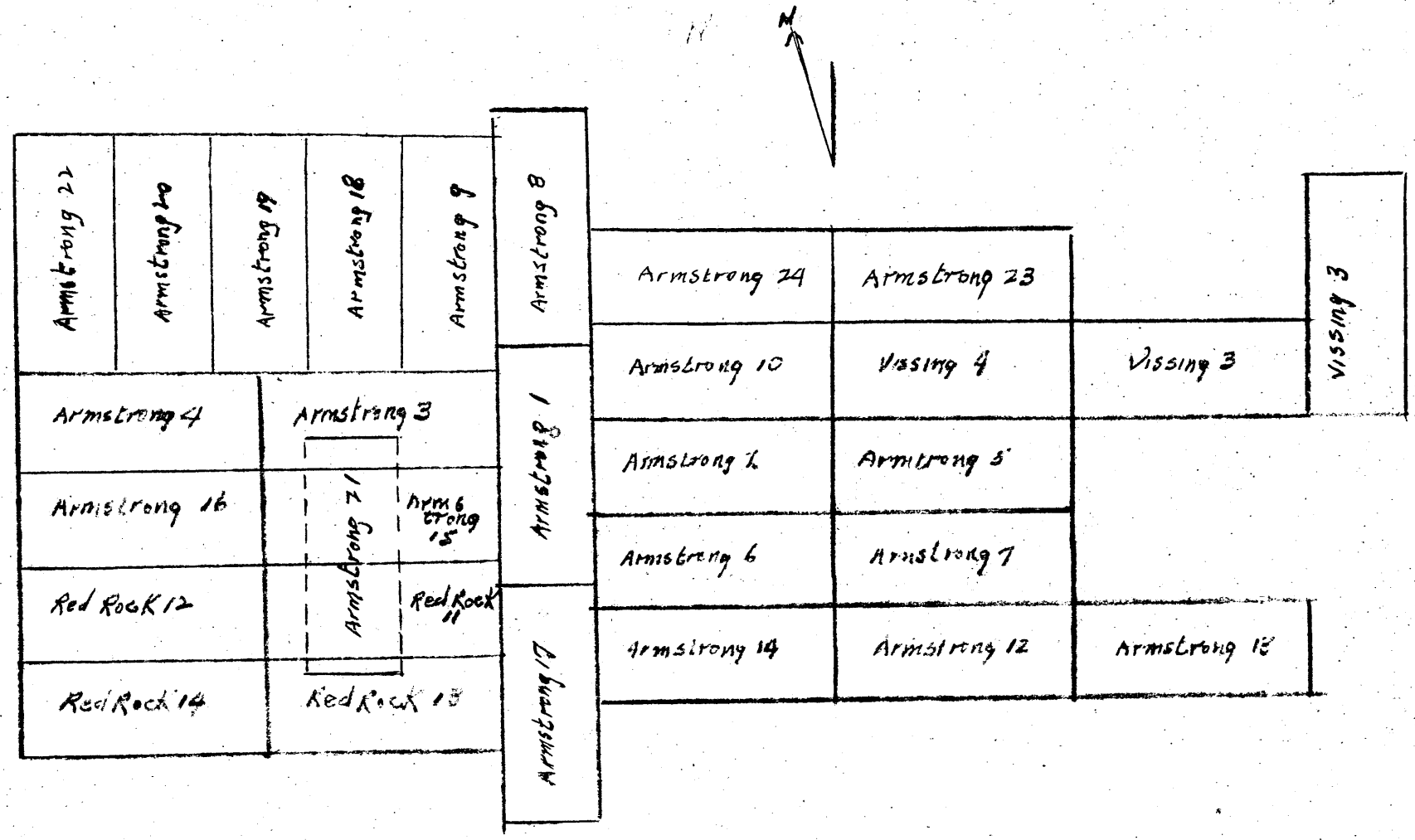
DATE	INITIAL	CODE



Main Group of Claims
Armstrong Lease, near Reno, Washoe County, Nevada, T24N R21E Sec 31 & 32.
Scale 1" = 1000'
Feb 22 1955

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RECEIVED MAY 12 1958

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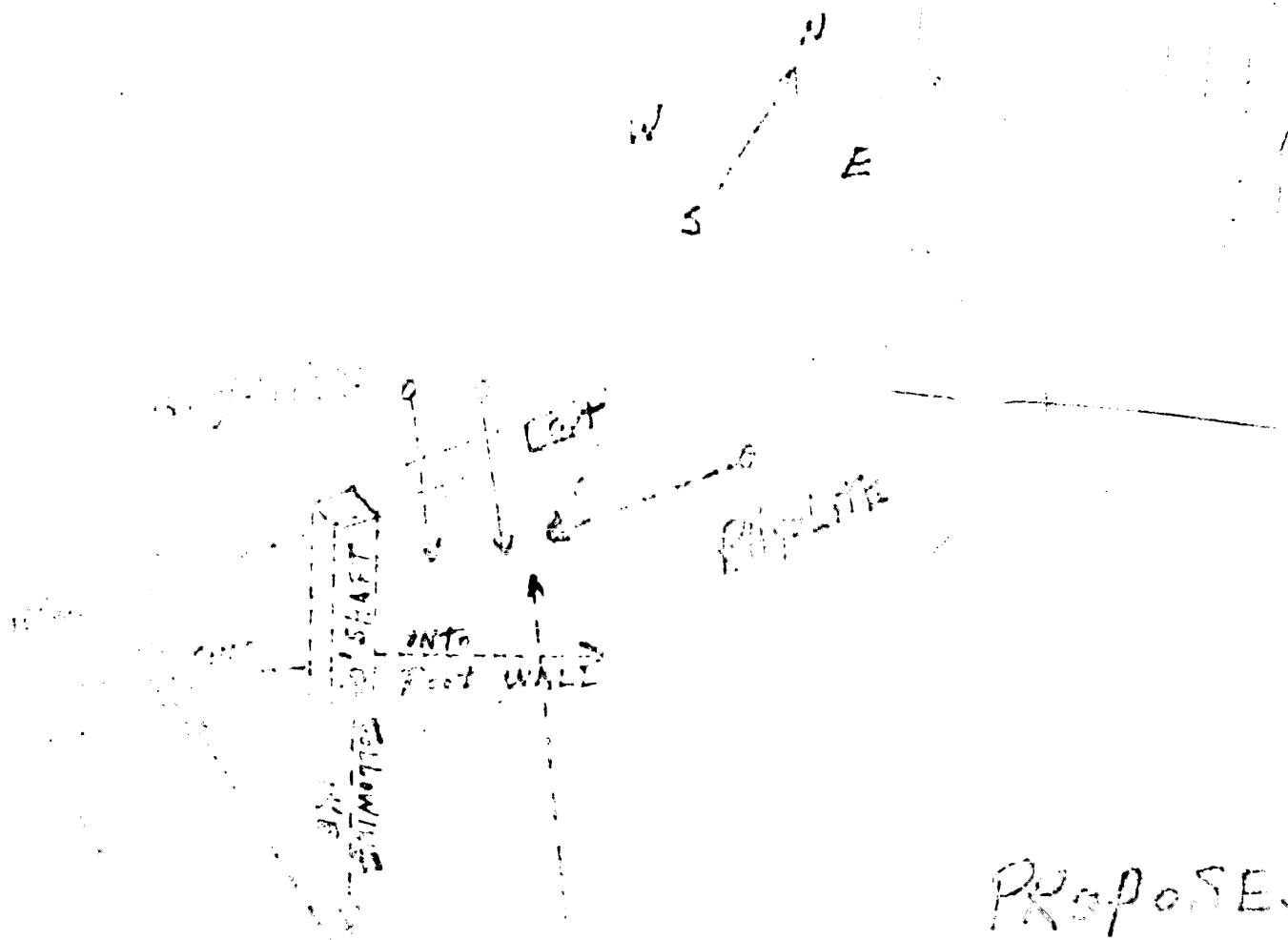

PROPOSED
DRILL HOLE

DMEA Form 7
(12-56)

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Date	Surname	Code
7-16	Murphy	700
7-16	Kubasko	700
7/16	Martin	130
"	Johnson	110
"	Mackenzie	100
7/16	Kulsgaard	130
		220
		700
7/16	Lamb	(130)

JUL 16 1958

Mr. Oliver Armstrong, Partner
2310 Hunter Lake Drive
Reno, Nevada

Re: Docket No. DMEA-5015 (Uranium)
Armstrong, Vissing and Redrock Groups
Washoe County, Nevada

Dear Mr. Armstrong:

We regret that we were unable to completely process your application for exploration aid prior to June 30, 1958, the termination date for approving new contracts, as announced by the enclosed copy of a news release of June 6, 1958.

However, had the processing been completed, we would have been unable to approve a project based upon the information available to us in Washington concerning your property.

We wish to thank you for your interest in the DMEA program and for bringing the exploration plan to our attention.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosure

FMMurphy/izm 7-15-58 (7-9-58)
cc: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
DMEA FT Reg. 2 (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/9/58	Murphy	700
7/9	Kuchia	700
		130
		110
		100
		220
		225

Mr. Oliver Armstrong, Partner
2310 Hunter Lake Drive
Reno, Nevada

Re: Docket No. DMEA-5015 (Uranium)
Armstrong, Vissing and Redrock Groups
Washoe County, Nevada

Dear Mr. Armstrong:

As announced by the enclosed news release of June 6, 1958, the termination date for consideration of applications under the Defense Minerals Exploration program was June 30, 1958. Unfortunately, the processing of your application for aid in an exploration project on the above-named groups of claims could not be completed prior to such termination date.

All information available to us in Washington concerning your property has since been carefully reviewed. Although noting some uranium mineralization on your property, it is our conclusion that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. Therefore, had final action been taken prior to June 30, your application would have been denied.

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

Sincerely yours,

FMMurphy/izm/gla
7-9-58

cc to: Admr.'s Reading File
Operating Committee
THKillsgaard, 5224
DMEA Field Team, Reg.II(2)
Mr. Murphy

Administrator

Enclosure

8623

July 3, 1958

Docket copy

Murphy

Summary of Proposed Project

Object:	Denial of application for exploration aid.
Docket No.:	DMEA-5015
Commodity:	Uranium
Amount of Application:	$13,000.00
Applicant:	Oliver Armstrong, et al. 2310 Hunter Lake Drive Reno, Nevada
Property Rights:	Owners of 28 claims (Armstrong, Vissing, and Redrock claim groups) situate in secs. 31 and 32, T. 24 N., R. 21 E., and in secs. 5 and 6, T. 23 N., R. 21 E., M.D.B.M., Washoe County, Nevada.
Date of Application:	April 29, 1958
Referred to Region II:	May 21, 1958
Field examination made:	May 19, 1958
Field Team report recd.	June 27, 1958
Work Proposed:	Diamond drill 12 holes on Armstrong No. 1 claim, 3 from the bottom of shaft to follow the dike, the others to cut the dike from stations in the canyon to the southeast; also, 3 or 4 holes on other than the main dike. On Armstrong No. 2, drill two or more holes. On Armstrong Nos. 19 and 21, drill 2 and 4 holes, respectively. The complete breakdown of estimated cost of $13,000.00 was not given. Time for completion of the work was estimated to be 4 months.

Excerpts from Field Team Report of Examination,
by B. H. Sheahan, USBM, and H. K. Stager, USGS.

The property is on the west side of the Virginia mountains. It is underlain by Tertiary volcanic rocks that consist chiefly of welded rhyolite tuff intruded by dacite dikes. These dikes are intruded along steep-dipping, north-trending faults and contain as much as a foot of gouge on the hanging-and footwalls.

In 1955, Homestake Mining Co. optioned the claims, but the option was relinguished after completion of preliminary trenching and some exploratory drilling.

In 1957, Angelo Filipelli leased the Armstrong No. 1 claim and sank a 35-foot prospect shaft and shipped 22 tons of ore, assaying 0.33% U_3O_8 and 0.02% V_2O_5, to Vitro Uranium Company's Salt Lake plant.

The ore produced was obtained from 4 or 5 pods in an area 4 feet wide, 8 feet long, and extending down the shaft about 35 feet. A zone of intense alteration in the rhyolite encloses the deposit and extends 10 to 20 feet out into the surrounding rock, Quartz phenocrysts contained in the tuff have been changed to a dark smoky color, probably as a result of radiation from the uranium minerals. Smoky quartz crystals and bleached rhyolite were not seen elsewhere on the property, although areas of slightly anomalous radioactivity are common.

Sixteen samples were taken from the Armstrong No. 1 claim by the examiners. Sample analyses indicate that the uranium-bearing material is spotty and material of ore grade amounts to only a few tons. Nine samples averaged less than 0.02% U_3O_8.

Two samples from a stub drift on the 35-foot level along the footwall side of the dike averaged 0.37% U308 across a 2.5-foot width. Four other samples from the shaft averaged 0.13% U_3O_8.

The ore-grade material consists of 1 to 6-inch seams of gouge, and small pods of fractured rhyolite in the footwall of the dike. Inferred reserves total about 20 tons of 0.3% U_3O_8 grade.

Alteration of the type associated with the ore bodies on the Armstrong No. 1 claim was not observed elsewhere on the property and for this reason other ore bodies are not inferred.

The examiners and Field Team recommend that the application be denied.

Commodity Members' Comments:

In memoranda, dated July 2 and 3, 1958, by James Paone, USBM, and N.E. Nelson, USGS, respectively, recommend that the application be denied.

Div. of Rare & Misc. Metals, F.M. Murphy, July 3, 1958:

The small pods of uranium ore exposed in the shaft on Armstrong #1 claim probably represent the type of mineralization that would occur along the other dikes in the proposed project area. Such occurrences do not present a suitable target for exploration by diamond drilling, moreover, the cost of the exploratory work would probably exceed the value of the ore found.

Conclusions and Recommendations:

This Division concurs in the examiners' and Field Team's recommendation that application DMEA-5015 should be denied.

F. L. Knouse

F. L. Knouse, Acting Director
Division of Rare and
Miscellaneous Metals

IN REPLY REFER TO:

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

July 3, 1958
Re: DMEA 5015
Oliver Armstrong, et al.
Armstrong, etc. groups
Washoe County, Nevada
$13,000.00 - 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 applicants requested assistance in exploring by core drilling several 'basalt' dikes which make in faults that cut welded rhyolite tuff. The faults contain as much as a foot of gouge on the foot- and hanging-walls.

The ore consists of uranium-bearing gouge in the foot-wall of a dacite dike, and uranium bearing altered tuff and dike rock. The ore occurs as pods of material from 4 or 5 of which was obtained the 22 tons of 0.33% U_3O_8 ore that constituted the one shipment made by a leaser. The pods are enclosed in a zone of intense alteration of the rhyolite that extends outward from the fault and dike for 10 to 20 feet.

The application says other dikes are similarly mineralized, but the examiners at no other place saw signs of alteration like that at the open cut and shaft on the Armstrong No. 1 claim. In the opinion of the examiners, the production, the indicated ore and that which may be inferred, do not justify the proposed drilling and they recommend that the application be denied.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

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JUL 7 1958
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Official

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

DATE		
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11	7MM	700

Date July 2, 1958

DMEA Docket No. 5015
DMEA Contract No.
Commodity Uranium
Name of Applicant Messrs. Armstrong, Arden & Vissing
Name of Property Armstrong, Vissing, & Redrock group of claims
Location of property Washoe Co., Nevada
Estimated cost of project $13,000.00

Memorandum

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
(Applications, Field Team Report, etc.)

1. Date of subject document 6/19/58. 2. Date received by reviewer: 6/27/58

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 meriting 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 [x]
d. Agree with Field Team [x]
e. Disagree with Field Team ☐
f. Suggest alternate plan ☐
g. Request another consultation ☐
h. Approval ☐
i. Consult with Mr. _____ at _____ AEC Office

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

June 24, 1958

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DMEA
RECEIVED JUN 27 1958

DATE	INITIALS	CODE
6/27	C	220
6/30	[illegible]	130
6/30	C	220
7/1	Murphy	700

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-5015 (Uranium)
Oliver Armstrong, et al.
Armstrong, Vissing, and Redrock Groups
Washoe County, Nevada
(Your letter, May 21, 1958)

Enclosed are three copies of a report by H. K. Stager, Geological Survey, and B. H. Sheahan, Bureau of Mines, on subject property.

Roscoe Smith and I concur in the recommendation that the application for exploration aid be denied.

S. Ricker

Attachments

Reviewed by
DMEA OPERATING COMMITTEE
6-30-58
(date)

ON-SITE EXAM. REPORT

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DMEA
RECEIVED JUN 27 1958

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION II

APPLICATION REPORT

DMEA-5015 (Uranium)
Messrs. Armstrong, Arden, and Vissing
Armstrong, Vissing, and Redrock groups of claims
Washoe County, Nevada

by

B. H. Sheahan
U. S. Bureau of Mines

H. K. Stager
U.S. Geological Survey

June 19, 1958

Reviewed by
DMEA OPERATING COMMITTEE
6-30-58
(date)

INTRODUCTION

Messrs. Oliver Armstrong, John Arden, and R. A. Vissing, partners, 2310 Hunter Lake Drive, Reno, Nevada, applied to the Defense Minerals Exploration Administration, docket DMEA-5015, for Government assistance in a $13,000.00 program to explore for uranium on the Armstrong, Vissing, and Redrock groups of claims, Washoe County, Nevada.

A field examination was requested by the Operating Committee and was made on May 19, 1958 by B. H. Sheahan, U.S. Bureau of Mines, and H. K. Stager, U.S. Geological Survey, accompanied by Oliver Armstrong.

Surface and underground workings on the property were checked with geiger and scintillation counters. The main workings on the Armstrong No. 1 claim were carefully mapped and sampled. The history of the property and the applicant's exploration proposal was discussed with Mr. Armstrong.

Acknowledgment is made to the personnel of the AEC office in Reno, Nevada, for use of a preliminary report describing the property.

CONCLUSIONS AND RECOMMENDATIONS

The deposit consists of small pods of uranophane and associated minerals, erratically distributed along the footwall side of a dacite dike.

The most radioactive part of the deposit has been explored by a few shallow drill holes, several shallow trenches, and a 35-foot shaft.

Results of the examination and sampling indicate that the occurrence of uranium-bearing material is spotty. Only a few small pods exposed on the 35-foot level of the shaft are of ore grade. Inferred and indicated reserves are about equal to the total production, or 22 tons averaging 0.33 percent U_3O_8. These reserves are not sufficient to justify the program of exploration proposed by the applicant or any alternate program.

It is therefore recommended that Government assistance be denied.

LOCATION, ACCESSIBILITY, AND FACILITIES

Location--The main workings are on the Armstrong No. 1 claim on the west slope of the Virginia Mountains at an altitude of 5,600 feet, in sec. 31, T. 24 N., R. 21 E., M.D.B.&M., Washoe County, Nevada.

Accessibility--To reach the property from Sparks, Nevada, travel northeasterly 26.7 miles on paved State Highway 33, turn left on a

steep tractor trail (30 percent grade) 2.6 miles to the prospect shaft at the Armstrong No. 1 claim.

Facilities--There is no water at the property and the nearest source is at Sutcliffe siding on the Southern Pacific railroad, 9.3 miles by road northeast of the claims. Reno, Nevada, 33 miles by road, is the principal supply point and source of labor. There is no housing on the property, and when the property was active workmen resided at Reno.

Cost of Supplies:

Water hauling	$0.02/gal.
Explosives	24.00/cwt.
Diesel fuel	0.22/gal.
Gasoline	0.38/gal.
Timber	80.00/M
Mine rail (used)	100.00/ton

Wage scale for miners----------$2.25/hr.

Assay office: Brown Laboratories, Grand Junction, Colorado

Chemical assays $3.50/ea.

PROPERTY AND OWNERSHIP

The property consists of 28 unpatented lode mining claims in sec. 31 and sec. 32, T. 24 N., R. 21 E., and in secs. 5 and 6, T. 23 N., R. 21 E., M.D.B.&M., Washoe County, Nevada. Location certificates are recorded at Reno.

Claim name	Location date	Book	Page
Armstrong Nos. 1-10	September 26, 1954 (first)	1	453
Armstrong Nos. 12-17	- -	-	-
Armstrong No. 19	- -	-	-
Armstrong Nos. 21-24	- -	-	-
Vissing Nos. 3-5	- -	-	-
Redrock Nos. 11-14	December 13, 1956 (last)	19	115

The claims are owned by Oliver Armstrong, John Arden, and R. A. Vissing.

Equipment owned by the applicants is stored at Reno. A list of this equipment follows:

		Condition
1	Bulldozer, D-2	fair
1	Air compressor, 105 c.f.m., portable	fair
1	Percussion rock drill (gasoline type)	fair
1	Jeep	fair
1	Truck, 1-1/2 ton, flat bed	fair
1	Scintillation counter	fair
1	Geiger counter	fair
	Miscellaneous pipe, hose, and hand tools	fair

The applicants are financially able to provide their share of exploration costs. Armstrong and Allen are employed in the meat packing business in Reno.

HISTORY AND PRODUCTION

Uranium minerals were discovered on the Armstrong No. 1 claim by Oliver Armstrong, John Arden, and associates, in September 1954. The Homestake Mining Company, 100 Bush Street, San Francisco, California, optioned the claims early in 1955 at a

purchase price of $1,500,000, but the option was relinquished after completion of preliminary trenching and exploratory drilling late in 1955. In 1956 the owners did some additional exploration and deepened a few trenches near the site of the exploratory holes drilled by Homestake.

In 1957 Mr. Angelo Filipelli, a miner, leased the Armstrong No. 1 claim and sank a 35-foot prospect shaft on the best showing. He mined 22 tons of ore from the shaft that summer. The ore was transported by tractor to State Highway 33 and by truck to the railroad siding at Sutcliffe and shipped to Vitro Uranium Company at Salt Lake City, Utah. The basis of settlement follows:

Vitro Lot No. 6439 (October 31, 1957)

Wet pounds	44,060	
Moisture	5.2 percent	
Dry pounds	41,768	
U_3O_8	0.33 percent,	137.83 pounds
V_2O_5	0.02 percent,	8.35 pounds
$CaCO_3$	0.72 percent,	300.73 pounds

The owners have done the annual assessment work and the property is now idle.

DEVELOPMENT

The main workings are shown on the attached map (fig. 2). These include a partly timbered 35-foot shaft, 4 feet by 6 feet in the clear, and several shallow open cuts and trenches from 1 foot to

8 feet deep, 4 feet to 10 feet wide, and from 5 feet to 25 feet in length. Ladders in the shaft are in poor condition and there are no surface improvements.

GEOLOGY

Geologic Setting:

The Armstrong property is in an area of high relief on the west side of the Virginia mountains. It is underlain by Tertiary volcanic rocks that consist chiefly of a welded rhyolite tuff intruded by dacite dikes.

The rhyolite that is exposed in the claim area is a light-pink to dark-reddish-brown, massive, flow-banded, welded tuff. The flow-banding strikes north and dips 15 degrees to 20 degrees east. The tuff contains abundant inclusions of other volcanic rock fragments including black amygdaloidal basalt and dense fine-grained andesite.

Intruding the rhyolite are several dikes of light-greenish-gray, fine-grained, amygdaloidal dacite. These dikes are intruded along steep-dipping, north-trending faults and contain as much as a foot of gouge on the hanging- and footwalls.

Cutting the rhyolite and offsetting the dacite dikes are several steep-dipping, west-striking faults. One of these faults, on the Armstrong claims, has about 5 feet of gouge and has offset a dike by about 1,000 feet of right-lateral movement (fig. 2).

Ore Deposits:

The deposit consists of small pods, lenses, and seams of uranium-bearing material concentrated in the fault gouge along the footwall of a dacite dike and in the adjacent altered rhyolite tuff.

The ore minerals are uranophane, autunite, and carnotite(?), that occur as yellow crusts in the fault gouge and as thin hair-like veinlets in the altered rhyolite tuff and to a lesser extent in the dacite dike rock. The uranium content of the ore bodies ranges from a trace to about 1.2 percent U_3O_8. Gangue minerals are hematite, limonite, and several unidentified clay minerals.

The ore bodies that have been mined are a few inches to 4 or 5 feet across and the 22 tons of 0.33 percent U_3O_8 ore that has been produced was obtained from four or five of these bodies in an area about 4 feet wide, 8 feet long, and extending down dip about 35 feet. A zone of intense alteration in the rhyolite encloses the deposit and extends about 10 to 20 feet out into the surrounding rock (fig. 2). Within this zone the rhyolite is bleached to a pale-pink- to white color and the small (1-2 mm) euhedral quartz phenocrysts contained in the tuff have been changed to a dark smoky color, probably as a result of

radiation from the uranium minerals. Smoky quartz crystals and bleached rhyolite were not seen elsewhere on the property although areas of slightly anomalous radioactivity are common.

Sampling:

Sixteen samples were taken from the Armstrong No. 1 claim, and sample locations are indicated on the attached map (fig. 2). Nine of these samples were taken from shallow pits and trenches along the mineralized zone. A weighted average of the nine samples S-725 through S-733 showed less than 0.02 percent U_3O_8 radiometrically.

Samples S-734 and S-735 cut from a stub drift on the 35-foot level from along the footwall side of the dike averaged 0.37 percent U_3O_8 across a 2.5-foot width. Four other samples, S-736 through S-739, from the shaft averaged 0.13 percent U_3O_8. Sample analyses indicate that the uranium-bearing material is very spotty and material of ore grade amounts to only a few tons.

Sample No.	Width, feet	Percent U_3O_8	Description
S-725	5.0	trace	Soft rhyolite gouge from shallow trench.
S-726	1.0	0.01	Hard rhyolite from shallow trench.
S-727	5.0	trace	Rhyolite and dacite from open trench.
S-728	0.5	0.03	Gouge from footwall side of dike from trench near shaft.
S-729	5.0	0.01	Dike rock, 4 ft. below surface.
S-730	0.5	0.03	Gouge from north side of dike from trench near shaft.
S-731	0.5	0.06	Gouge 4 ft. below sample S-730 from trench.
S-732	5.5	0.01	Dike rock, bottom of trench.

Sample No.	Width, feet	Percent U_3O_8	Description
S-733	2.5	0.06	Rhyolite from pit near main trench and shaft.
S-734	0.5	1.19	Gouge from stub drift, 35-ft. level, footwall side of dike.
S-735	2.0	0.17	Rhyolite from face of stub drift, 35-ft. level.
S-736	0.5	0.01	Dike rock, northeast corner of shaft, 35-ft. level.
S-737	0.5	0.02	Rhyolite on footwall side of dike, 35-ft. level.
S-738	0.5	0.03	Gouge on footwall side of dike, 25-ft. depth.
S-739	3.0	0.19	Gouge dike and rhyolite, 12-ft. depth, east side of shaft, exposed in face of stub drift.
S-740	grab	0.04	Grab from waste dump at shaft, mixture of rhyolite and dike. Approx. 100 tons in dump.

ORE RESERVES

There are no measured reserves of uranium ore on the property. Indicated reserves total a few tons of ore that averages about 0.3 percent U_3O_8. This ore is exposed in the bottom of the shaft (fig. 2) and consists of 1 to 6 inch seams of uranium-bearing fault gouge along the footwall of the dike and small pods 1 to 3 feet in diameter of fractured and altered uranium-bearing rhyolite in the footwall rock adjacent to the dike. Inferred reserves total about 20 tons of the same average grade and consist of similar pods and seams of uranium-bearing material along the footwall of the dike and in the adjacent rhyolite tuff between the shaft and the open cut 15 feet to the northeast.

Alteration of the type associated with the ore bodies on the Armstrong No. 1 claim was not observed elsewhere on the property and for this reason other ore bodies are not inferred.

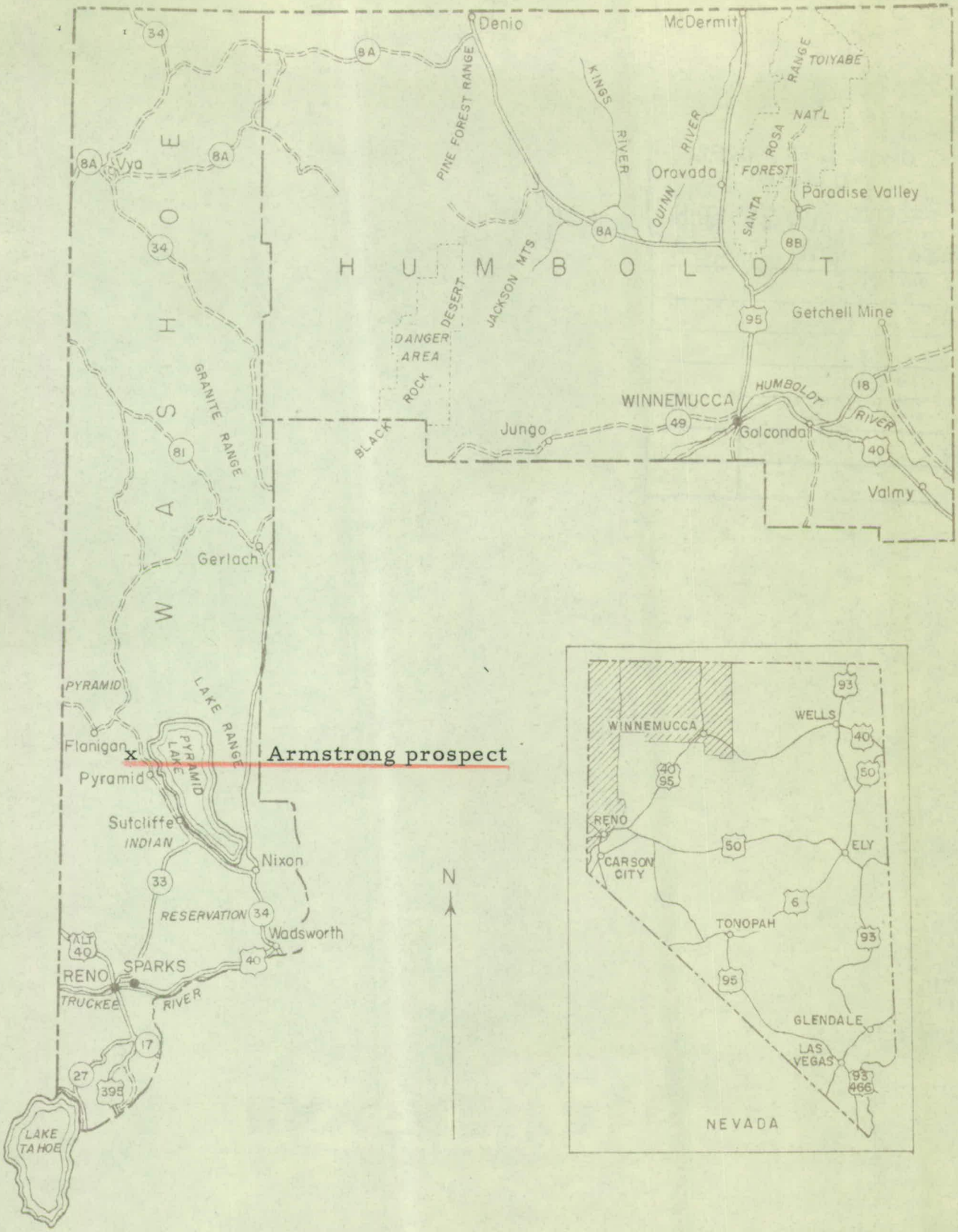

Figure 1. INDEX MAP OF HUMBOLDT AND WASHOE COUNTIES, NEVADA

0 25 50 75 Miles

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 27 1958

DATE	INITIALS	CODE

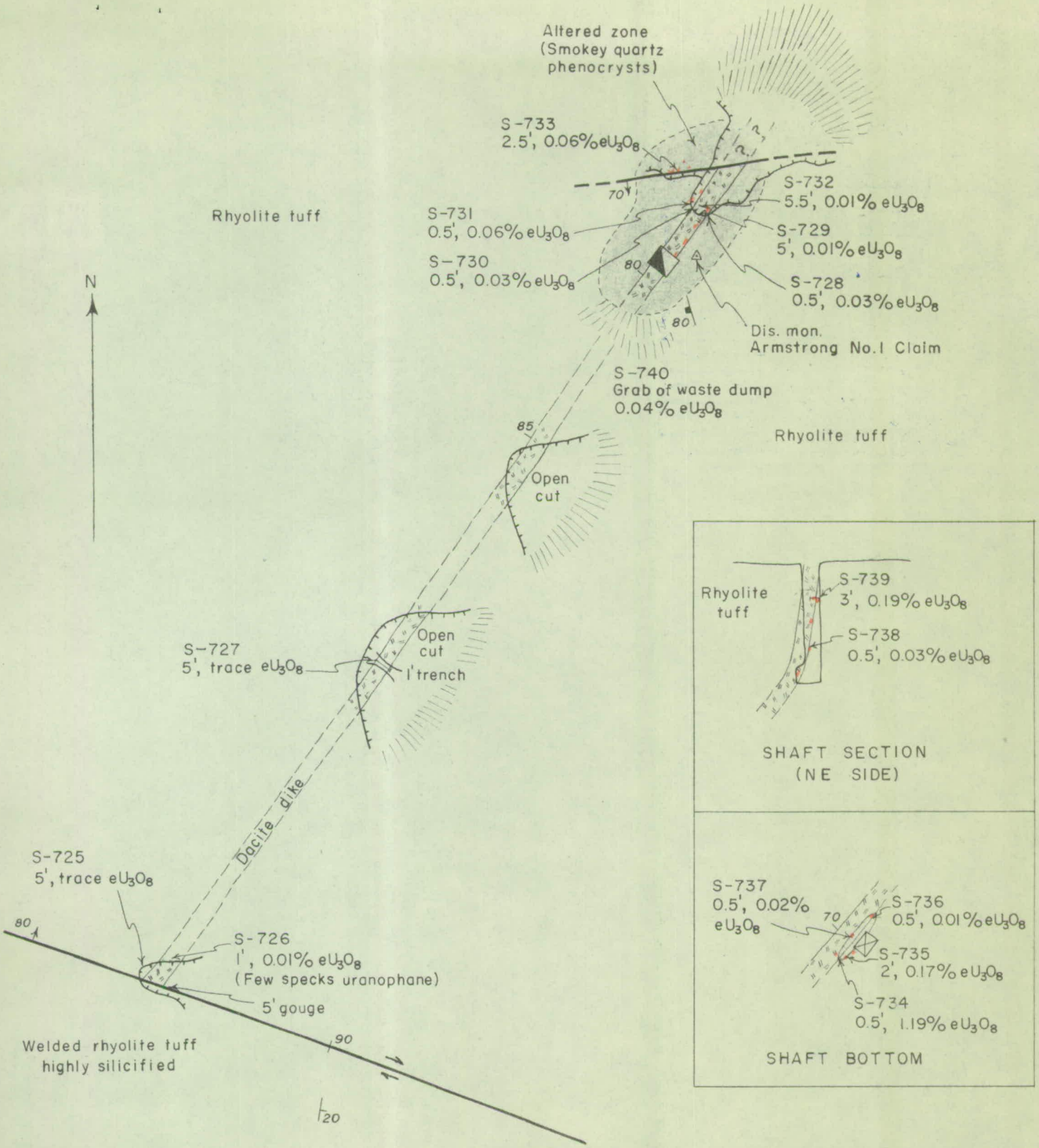

Figure 2. GEOLOGIC SKETCH MAP, ARMSTRONG PROSPECT
WASHOE COUNTY, NEVADA

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DMEA
RECEIVED JUN 27 1959

DATE	INITIALS	CODE

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/16	Murphy	700
5/16	[illegible]	700
5/20	[illegible]	130
"	Johnson	110
"	[illegible]	100
		[illegible]
5/21	C	220
		700

Mr. Spangler Ricker
Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA-5015 (Uranium)
Oliver Armstrong, et al.
Armstrong, Viesing and Redrock Groups
Washoe County, Nevada

Dear Mr. Ricker:

The captioned application is referred to Region II Field Team for review, a field examination if deemed advisable, and recommendations.

Enclosed are copies of memoranda, dated May 15, 1958, by James Paone, USBM, and W. F. Williams, USGS, relating to the application.

Also enclosed are one copy of the application and a report by A. L. Slaughter for Field Team use. Kindly return the copy of Mr. Slaughter's report to the Applicant when it has served its purpose.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

Enclosures

APPROVED:

P. F. Yopes (HB)

Member, Bureau of Mines

Thor H. Kiilsgaard (HB)

Member, Geological Survey

FMMurphy/izm 5-16-58
cc: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/20	Murphy	700
5/20	Eli	700
5/20	Selfridge	130
"	Hunter	110
"	Mittendorf	100
		220
		700

MAY 21 1958

Mr. Oliver Armstrong, Partner
2310 Hunter Lake Drive
Reno, Nevada

Re: Docket No. DMEA-5015 (Uranium)
Armstrong, Vissing and Redrock Groups
Washoe County, Nevada

Dear Mr. Armstrong:

The application for assistance in exploring your property, under the captioned docket number, has been reviewed by the Division of Rare and Miscellaneous Metals of the Defense Minerals Exploration Administration. It has been referred to:

Mr. Spangler Ricker
Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

FMMurphy/izm (5-16-58) 5-19-58
cc: Mr. Murphy
Admr.'s Reading File
DMEA FT Reg. 2 (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/16	Murphy	700
5/16	Ellis	700
		1300
		110
		100
5/19	Yager	130
5/19	Gilbeyond	130
		220
		700

Mr. Oliver Armstrong, Partner
2310 Hunter Lake Drive
Reno, Nevada

Re: Docket No. DMEA-5015 (Uranium)
Armstrong, Vissing and Redrock Groups
Washoe County, Nevada

Dear Mr. Armstrong:

The above-docketed application for exploration aid has been reviewed by the Division of Rare and Miscellaneous Metals of the Defense Minerals Exploration Administration. A copy of the application has been retained by our Field Team at Reno, Nevada. The copy of Mr. Slaughter's report, which was marked to be returned to you, has been forwarded to the Regional Office since it contains information lacking in some copies of the application. The Regional Office will return Mr. Slaughter's report to you when it has served its purpose.

The Field Team will contact you shortly, if it has not already done so, with regard to further processing of the subject application. Any assistance you may give the Field Team will be appreciated.

Sincerely yours,

Administrator

FMMurphy/izm 5-16-58
cc: Mr. Murphy
Admr.'s Reading File
DMEA FT Reg. 2 (2)

8623

IN REPLY REFER TO:

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

Memorandum May 15, 1958

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of application, DMEA 5015, Oliver Armstrong et al., Armstrong, Vissing and Redrock Claims, Washoe County, Nevada (uranium).

The applicant proposes to explore for uranium ore deposits on 28 mining claims in three groups. The proposed project would consist of a total of 28 drill holes, at a total estimated project cost of $13,000.

Uranium minerals on the applicant's property appear to be associated with rhyolite tuff that has been intruded by basalt dikes. The applicant reports that a 40-foot shaft and an 18-foot-deep open cut exist on the claims. He reports further that 20 tons of ore have been shipped from the property which assayed 0.33% U_3O_8.

The application is brief and poorly prepared. A crude sketch map without scale does not show exactly where the proposed work is to be done. Assays on the reported ore shipments have not been submitted. It seems doubtful that the primary uranium minerals associated with intrusive dikes could be developed into a significant ore deposit by the proposed drilling.

The applicant could appropriately be asked to supplement his application with further information. The alternative would be to refer the application to the Field Team for field examination.

W. P. Williams

W. P. Williams

COPY
DMEA
RECEIVED 16
DATE
5/16 C 220 700

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 15 1958

DATE	INITIALS	CODE
5/15	C	220
"	EWE	700
	Murphy	
Memorandum		

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

Date May 15, 1958

DMEA Docket No. 5015
DMEA Contract No.
Commodity Uranium
Name of Applicant Oliver Armstrong, et al
Name of property Armstrong, Vissing, Redrock group
Location of property Washoe County, Nevada
Estimated cost of project $13,000

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee
From: James Paone, Bureau of Mines Member JP
Uranium Commodity Committee
Subject: Review of Application
(Application, Field Team Report, etc.)

1. Date of subject document: 5/6/58. 2. Date received by reviewer: 5/13/58

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 x
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 examination ☐
h. Approval ☐
i. Consult with Mr. _____ at _____ AEC office.

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

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

May 12, 1958

Mr. Oliver Armstrong
2310 Hunter Lake Drive
Reno, Nevada

Subject: DMEA-5015

Dear Mr. Armstrong:

Your application for exploration assistance, dated April 29, 1958 submitted to our office at Reno, Nevada has been assigned Docket Number DMEA-5015 and referred to the Rare and Miscellaneous Metals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region II.