DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 4775

Application
- [x] 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- [ ] Withdrawn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

- [x] Project summary (final)
- [ ] Work Completed 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
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 1 1957

DATE	NOTES	CODE

June 28, 1957

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

Re: Transmittal of new application (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Selfridge:

Enclosed are the original and two copies of an application received from the Washington Mining Corporation of Tacoma, Washington, to explore for mercury at the Royal Reward mine in King County, Washington.

We had been advised that this application was in the mail; therefore, as we had fieldmen within a few miles of the property, we made the examination June 27. As soon as our report is prepared, we will foward it to you, probably recommending that a program be approved.

Sincerely yours,

Donald R. MacLaren

Donald R. MacLaren
Alternate Acting Executive Officer

Enclosures
cc: USBM(2)
Geologist

WASHINGTON MINING CORPORATION
38 IDAHO STREET
TACOMA 9, WASHINGTON

Please refer reply to: John A. Roller

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DATE	INITIALS	CODE

June 26, 1957

Mr. A.E. Weissenborn
Regional Director
Defense Minerals Exploration Administration
South 157 Howard Street
Spokane 4, Washington

Dear Mr. Weissenborn:

In conformance with the regulation set forth in government Form MF-103 "Application for Aid in an Exploration Project", we are here-by submitting the attached request.

We realize that the program which we have outlined is of fair magnitude and for this reason we have broken our exploration work into Items "A to F". These items are basically in the order of sequence and if your office feels that approval of the latter items should be contingent upon the satisfactory progress of the earlier items, this can easily be done.

We trust that we have supplied all of the information necessary for this request but if there is need for additional expansion on any point, we will be happy to furnish it.

We wish to thank you in advance for your efforts upon our behalf.

Very Truly Yours,

John A. Roller

John A. Roller,
President

JAR:rr

RECEIVED
certified mail
JUN 28 1957
U. S. G. S.
SPOKANE, WASH

WASHINGTON MINING CORPORATION

TACOMA, WASHINGTON

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DATE	INITIALS	CODE
7/3	RC	400

APPLICATION FOR AID IN AN EXPLORATION PROJECT PURSUANT

TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT

OF 1950, AS AMENDED

JUNE 24, 1957

I N D E X

SUBJECT-	PAGE
Application for Aid in an Exploration Project (Form MF-103)	1
Applicant's Property Rights	2
Physical Description	3
Accessibility of Project	4
The Exploration Project	5
Experience	7
Estimate of Costs	8

LIST OF MAPS & DRAWINGS ENCLOSED

Drawing 2B-1	Property Location
Drawing 2B-2	Elevation Existing Face
Drawing 2B-3	Proposed Exploration, Isometric Projection
Drawing 2B-4	Proposed Exploration, Elevation and Cross-section
Drawing 2B-5	Plan and Profile, Adit No. 1 (Existing)
Drawing 2B-6	Adit No. 1 Cross Section Station 0 + 10
Drawing 2B-7	Adit No. 1 Cross Section Station 0 + 15
Drawing 2B-8	Adit No. 1 Cross Section Station 0 + 20
Drawing 2B-9	Adit No. 1 Cross Section Station 0 + 25
Drawing 2B-10	Adit No. 1 Cross Section Station 0 + 30
Drawing 2B-11	Adit No. 1 Cross Section Station 0 + 35
Drawing 2B-12	Adit No. 1 Cross Section Station 0 + 40
Drawing 2B-13	Adit No. 1 Cross Section Station 0 + 45
Drawing 2B-14	Property Topographic Map

Settlement Sheets for Quicksilver sold.

Form MF-103
Revised Feb. 1957

RECEIVED
Certified Mail
JUN 28 1957
U. S. G. S.
SPOKANE, WASH

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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)

Washington Mining Corporation
38 Idaho Street
Tacoma 9, Washington

APPLICANT NOT TO USE THIS BLOCK

Docket Number: 4775
Date Received: 7-1-57
Government Participation %: Grading
Region: T N W
Division Code: 400

BUSINESS ORGANIZATION (Check one)

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

State in which firm is organized: Washington

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
John A. Roller,	38 Idaho St., Tacoma 9,	President
L.V. Berkshire,	Box 51, Palmer, Wash.,	Vice President
R.E. Ljungdahl,	1839 Porter Street Enumclaw, Washington	Secretary
H.S. Baarslag, Jr,	708 No. Carr, Tacoma 3,	Treasurer
E.J. Cassell,	323 Medical-Dental Bldg. Seattle 1, Wash.	Asst. Secretary

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

Estimated Cost of Project: $ 122,000.00

LOCATION OF PROPERTY

Name	County	State
Royal Reward Mine, (Proj. 2-B)	King,	Washington

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order-I, Amended, "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.

June 24, 1957
Dated

H. S. Baarslag Jr.
BY *(Signature)*

Treasurer
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, Amended.

(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. 15539

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

APPLICATION FOR AID IN AN EXPLORATION PROJECT

1. APPLICANT'S PROPERTY RIGHTS

a) The following information has been compiled by the WASHINGTON MINING CORPORATION (A Washington corporation) in connection with the outline form specified by the United States Government (Form MF-103 revised February 1957) for assistance in the discovery of new ore bodies. This brochure outlines a program for the further investigation of a Cinnabar project located in King County, State of Washington. The legal description is as follow:

"the NE 1/4, SE 1/4, Section 8, Township 21 North, Range 7 East, WM" 40 acres ±

The property is owned in fee (both surface and mineral rights) by the corporation.

The property to the east is controlled by the Corporation under Testing and Mining Permit No.3785 & Lease Agreement dated May 9, 1957 with the Northern Pacific Railway but is not included in this request.

The property to the west is controlled by the Corporation under Prospecting Permit & Lease Agreement dated May 17, 1957 with the Weyerheauser Timber Company but is not included in this request.

b) Royal Reward Mine on Project 2B.

c) Owned in fee including mineral rights (40 acres more or less) NE 1/4, SE 1/4, Section 8, Township 21 North, Range 7 East, WM

d) None

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RECEIVED JUL 1 1957

DATE	INITIALS	CODE

2. PHYSICAL DESCRIPTION

a) The project is located in a zone of hydrothermally altered andesite underlaid by carbonaceous shale, badly altered coal and sandstone. The prospect adit at this time is approximately 50 feet into the face of a 75 foot cliff. The cliff being located on the left (south) bank of the Green River. The Portal is approximately twenty (20) feet above the high water mark of the river. Refer to Drawings # 2B-2, 2B-5, 2B-6, 2B-7, 2B-8, 2B-9, 2B-10, 2B-11, 2B-12 and 2B-13.

According to the records which are available to this organization there has been considerable prospecting in the area but mostly for coal. There were in past years large operating mines to the east, west and south of the area which we are now exploring. Some of these mines descended to depths over one thousand (1,000) feet. (See Preliminary Geologic Map & Brief Description of the Coal Fields of King County, Washington; prepared by the United States Geological Survey.) Considerable difficulty was encountered with water in these coal mines and we expect that the highly altered and fractured zone in which we are working will present many of the same problems.

This corporation has been carrying on exploratory work on this property since February of 1957.

Quicksilver has been produced with a small (60 pound capacity) propane fired pilot retort. The retort is equiped with three thermocouples which are designed to check the temperature thru the system. The condenser system has been altered several times until we now have a small vertical type condenser with an induced draft. The recovery from this system has been good and the information gathered on the burning characteristics of the ore has been gratifying.

b) The reduction facilities described in "2a" are owned in full by Washington Mining Corporation and located on our property.

c) The mine has produced to date five flasks of quicksilver. (Four flasks sold to Quicksilver Produce Incorporated, San Francisco, California ----copies of settlement sheet are attached hereto; and one flask is on hand in stock.) We have also at this time a stockpile from the same area of approximately fifty tons of ore which average 23.1 pounds per ton.

d) Adit #1 details shown in cross-section on Drawings 2B-6 thru 2B-13 are representative of ore located to date. Note assay values have been shown on drawing. The corporation has assay facilities at its field office. All assaying is done by the Potasium Thiocyanate Methode of Titration.

e) Refer to Drawing 2B-3 showing isometric projection of the formation as it appears at this time.

f) Refer to statements in "2d and 2e" for the reason for expecting to find ore. This deposit is apparently related to similar mineralization located to the South West and the North East on a portion of the 2,000 acres which we control.

g) See enclosed report copies of maps and records.

3. ACCESSIBILITY OF PROJECT

a) The property is accessible by County roads to within one and a half ($1\frac{1}{2}$) miles. At that point a private road proceeds to the mine. This last portion of the road is all on land owned or controlled by our corporation. See Topographic Map of Section 8, 9 & 17, Drawing No. 2B-14.

The corporation has a field office located at Kanaskat, Washington (telephone number TUxedo 6-2556, Black Diamond Exchange). This office is the former office of the Palmer Lumber Company. Our vice-president who is in charge of exploratory work is Mr. Laurence Berkshire. He resides at Selleck, Washington (telephone number TUxedo 6-2903, Black Diamond Exchange). These numbers are generally monitered only during the evening (after 5 P.M.) and early morning (before 8 A.M.).

b) Nearest large shipping point is Tacoma, Washington a distance of thirty-five (35) miles. Employees reside at Selleck and Cumberland, Washington located within five miles of the mine.

4. THE EXPLORATION PROJECT

a) The basic exploration program as outlined in this report has been discussed with Mr. Burt Avery, Superintendent of the Bonanza Mine in Sutherlin, Oregon. It is on his recommendation that we are proceeding with the methods of exploration outlined in this request.

For graphical portrail of exploration program please refer to Drawing "2B-3 and 2B-4".

ITEM A

Access Adit #2 (5' x 7') approximately 50' long drifting westerly on the 60' level from approximate station 0 + 20' on Adit #1.

Purpose to connect Adit #1 with proposed vertical shaft. To be used to explore the formation to the west included carbonaceous shale and sandstone and facilitate water removal from the lower levels.

ITEM B

Number 1 shaft sinking from 0' (zero) level to approximately 250' level. Size 5' x 11' including man-way and skip-way.

ITEM B1

Twenty foot (20') of drifting at the base of the vertical shaft Number 1 to provide sump for pumping as we anticipate considerable water problem.

ITEM C

Drifting in a southernly direction for a distance of 300' at approximately the 220' level with a 5' x 7' drift, along the formation to explore the ore structures encountered on the 60' level to a greater depth.

ITEM D

Drifting in a northernly direction for a distance of 400' at approximately the 220' level with a 5' x 7' drift along the formation to explore the ore structures encountered on the 60' level to a greater depth.

ITEM E

Crosscut into the foot wall at 220' level to intercept the present vein and to determine the presence of any parallel mineralized structures. Estimated length 200' of 5' x 7' crosscut.

ITEM F

Raising 150' with 5' x 11' two compartment raise from the 220' level on formation to determine the continuity of the vein structure, commencing at some station in the South drift (Item C), to be determined later.

ITEM G

Diamond drilling from shaft in easternly direction EX cores 200 feet total necessary to check formation as the work on the vertical shaft progresses.

b) There is an access road available to the project.

c) Work on this project will start in thirty (30) days and complete in twelve (12) months. (One month has been added for emergencies & contingencies.)

Item "A"	will	take	3	weeks	to	complete.					
Item "B"	"	"	13	"	"	"	after	Item	"A"	is	completed.
Item "B1"	"	"	1	"	"	"	"	"	"B"	"	"
Item "C"	"	"	$7\frac{1}{2}$	"	"	"	"	"	"B1"	"	"
Item "D"	"	"	10	"	"	"	"	"	"C"	"	"
Item "E"	"	"	$5\frac{1}{2}$	"	"	"	"	"	"D"	"	"
Item "F"	"	"	$7\frac{1}{2}$	"	"	"	"	"	"E"	"	"

Item "G" will be performed concurrent with Item "B".

5. EXPERIENCE

a) The Officers of the Corporation include:

J.A. Roller	President	Registered Professional Engineer, ten years experience in design, construction and supervision
L.V. Berkshire	Vice-President	Professional Prospector, fifteen years experience in field exploration
R.E. Ljungdahl	Secretary	Professional Prospector, fifteen years experience in surface and under-ground survey and analysis
H.S. Baarslag, Jr.	Treasurer	Registered Professional Engineer, twenty-five years of design and construction of mining equipment & installation and in management
Dr. E.J. Cassell	Ass't. Sec.	Dentist, has had considerable experience in the financial phase of mine development and is currently associated with other mining ventures
Burton Avery	General Superintendent	(formerly of Bonanza Oil & Mining Co., Sutherlin, Oregon) twenty years of experience in all phases of mercury mining, milling and processes.

The WASHINGTON MINING CORPORATION has been incorporated for over one year and has spent in excess of $30,000 in labor and equipment and preliminary explorations. This corporation is a closed corporation and stock has not been offered for sale to the general public.

6. ESTIMATE OF COSTS:

SUMMARY OF PROPOSED EXPLORATION COSTS;

Item (A) Access Adit	Drift North on 60' level. 50 Ft. @ $44.50 per ft.	$ 2,225.00
Item (B) Vertical Shaft	0' level to 250' level plus head frame. 250 Ft. @ $165.00 per ft.	41,250.00
Item (B-1) Shaft Sump and Pocket	20 Ft. @ $69.00 per ft.	1,380.00
Item (C) 220 Level South Drift	(On formation) 300 Ft. @ $69.00 per ft.	20,700.00
Item (D) 220 Level North Drift	(On Formation) 400 Ft. @ $69.00 per ft.	27,600.00
Item (E) 220 Level Cross Cut	200 Ft. @ $69.00 per ft.	13,800.00
Item (F) No. 1 Raise	220 level to 70 level. 150 Ft. @ $95.00 per ft.	14,250.00
Item (G) Diamond Drilling	Shaft to formation 200 Ft. @ $4.00 per ft.	800.00
	TOTAL	$ 122,005.00

a) INDEPENDENT CONTRACTS. None

b) PERSONAL SERVICES

The necessary supervision will be furnished by Mr. Burton Avery, our General Superintendent. The engineering and geological services will be furnished by Messrs. Berkshire,Ljungdahl, Roller & Baarslag. The charges for these services have been indicated under the detailed estimates of costs. The technicians and employees are now or will be available later at the commencement date of the contract.

c) OPERATING MATERIALS AND SUPPLIES

Detailed estimates of costs for each item including labor follows:

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

Item (A) Access Adit
50 Ft. of 5 Ft. x 7 Ft. Drift on 60' level. Drifting 4 ft. per shift, on a one shift basis, 5 days per week.

	per foot	Total
Labor:		
Drilling, loading, mucking, tramming 16 hrs. @ $2.75 per hour	$ 11.00	
Miscellaneous, 4 hrs. @ $2.50 per hour	2.50	
Industrial Insurance & Medical Aid	1.25	
Payroll Taxes @ 6%	.81	
Supervision	3.50	
Engineering Mapping, Assaying	2.00	
		$ 21.06
Supplies:		
50# Gelex No. 2, 45% Dupont Blasting Powder at 25¢ per lb.	3.12	
18 Electric Delay Detonators @ 26¢ each	1.17	
Leadwire	.20	
Drill Steel	1.00	
Compressed Air	3.31	
4" x 6" Douglas Fir Ties	.24	
1" Black Pipe, water line	.28	
2" Black Pipe, air line	.58	
20# Mine Rails, @ 8¢ per lb.	1.08	
Track bolts, spikes & plates	.25	
Pipe fittings, valves & Miscellaneous	.25	
Vent Pipe 8" dia. @ $1.25 per ft.	1.25	
State of Washington, Sales Tax	.42	
		13.15
Timbering:		
208 B.F.M. Douglas Fir timbers	5.37	
Labor trimming	3.00	
		8.37
Emergencies, Contingencies & Miscellaneous	1.92	
		1.92
Unit price per foot Total		$ 44.50

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

Item (B) Vertical Shaft
Sinking 250 Feet of 5 Ft x 11 Ft shaft, manway and skipway, 1.7 Ft per shift, 2 shifts per day, 6 days per week.

	per foot	Total
Labor:		
Drilling, 16 hrs. @ $3.00 per hr	$ 9.60	
Mucking, 16 hrs @ $3.00 per hr	9.60	
Timbering, 16 hrs @ $3.00 per hr	9.60	
Skip tender, 8 hrs @ $3.00 per hr	4.80	
Framing timbers, pumping and miscellaneous, 24 hrs @ $2.50 per hr	12.00	
Industrial Insurance & Medical Aid	4.00	
Payroll Taxes @ 6%	2.74	
Supervision	10.00	
Engineering, mapping, assaying	5.00	
		$ 67.34
Supplies:		
Fir Timbers and lagging, #2 or better 190 FBM @ $100.00 per m	19.00	
Oak Guides, @ $300.00 per m	.78	
75# Gelex No.2, 45% Dupont Blasting Powder at 25¢ per lb	3.75	
24 Electric Delay Detonators @ 26¢ each	1.25	
Leadwire	.20	
Drill Steel	2.50	
Hanging Rods	3.60	
1" Blk Pipe, Water line	.28	
2" Blk Pipe, Air line	.58	
8" Blk Pipe, Pump discharge line	3.25	
8" Ventilation Pipe, flexible	1.25	
Compressed Air	7.95	
Hoisting and lowering	7.95	
Pumping (500 to 1,000 G.P.M.)	16.00	
State of Washington, Sales Tax 3-1/3%	1.24	
		69.58

Head Frame: (40 Ft. High, with head sheave and concrete foundation)

Labor	$ 3,000.00	
Timbers 10m FBM @ $100.00/m	1,000.00	
Head sheave, rods, etc.	1,000.00	
Concrete in place	250.00	
	5,250.00	21.00
Emergencies, Contingencies & Miscellaneous		7.08
Unit price per foot, total		$165.00

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

Items (C, D &E) 900 Ft. of 5 Ft x 7 Ft Drifts and Crosscuts in heavy water conditions on 220 level. 4 Ft per shift, 2 shifts per day, 5 days per week.

Labor:	per foot	Total
Drilling, mucking, loading, tramming, 16 hrs @ $2.75 per hr	$ 11.00	
Hoistman, 8 hrs @ $2.75 per hr	5.50	
Skiptender, 4 hrs @ $2.75 per hr	2.75	
Pumpman, 4 hrs @ $2.50 per hr	2.50	
Miscellaneous, 4 hrs @ $2.75 per hr	2.75	
Industrial Insurance & Medical Aid	2.25	
Payroll Taxes @ 6%	1.47	
Supervision	3.50	
Engineering, mapping, assaying	2.00	
		$ 33.72
Supplies:		
50# Gelex No.2, 45% Dupont Blasting Powder at 25¢ per lb.	3.12	
18 Electric Delay Detonators @ 26¢ each	1.17	
Leadwire	.20	
Drill Steel	1.00	
Compressed Air	3.31	
Hoisting, 220 to 0 level	3.00	
Douglas Fir Ties, 4" by 6"	.24	
1" Blk Pipe, Water line	.28	
2" Blk Pipe, Air Line	.58	
20# Mine Rail, @ 8¢ per lb	1.08	
Trackbolts, spikes & plates	.25	
Pipefittings, valves & Miscellaneous	.25	
Vent pipe, 8" flexible	1.25	
Pumping (500 to 1,000 G.P.M.)	5.50	
State of Washington, Sales Tax 3-1/3 %	.78	
		$ 22.01
Timbering:		
208 B.F.M. Douglas Fir Timbers	5.37	
Labor, framing and trimming	4.00	
		$ 9.37
Emergencies, Contingencies & Miscellaneous	3.90	
		3.90
Unit price per foot, total		$ 69.00

Item (F) 150 Ft. of 5 Ft x 11 Ft Raise in water conditions, from 220' level to 70' level. 2-1/2 Ft. advance per shift, 1 shift per day, 5 days per week.

Labor:	per foot	Total
Drilling, mucking, 16 hrs @ $2.75 per hr	$ 8.80	
Tramming, 4 hrs @ $2.75 per hr	2.20	
Timbering, 16 hrs @ $2.75 per hr	8.80	
Skiptender, 4 hrs @ $2.75 per hr	2.20	
Framing timbers, misc., 12 hrs @ $2.50 per hr	6.00	
Industrial Insurance & Medical Aid	2.60	
Payroll Taxes @ 6%	1.68	
Supervision	6.80	
Engineering, mapping, assaying	3.20	
		$ 42.28
Supplies:		
Fir Timbers and lagging, #2 and better 190 FBM @ $100.00 per m	19.00	
75# Gelex No. 2, 45% Dupont Blasting Powder at 25¢ per lb	3.75	
24 Detonators, Electric Delay @ 26¢ each	1.25	
Leadwire	.20	
Drill Steel	1.60	
Compressed Air	5.30	
1" Blk Pipe, Water Line	.28	
2" Blk Pipe, Air Line	.58	
Pipe fittings, valves and miscellaneous	.20	
Hoisting and lowering	7.95	
Pumping (500 to 1,000 G.P.M.)	7.04	
State of Washington, Sales Tax 3-1/3%	1.09	
		48.24
Emergencies, Contingencies & Miscellaneous		4.48
Unit price per foot, total		$ 95.00

Item (G) Diamond Drilling. 200 Ft of drilling from shaft to formation, EX cores

Labor	2.45
Supplies, bits, miscellaneous, including Sales Tax	1.55
Unit price per foot, total	$ 4.00

6. (d) OPERATING EQUIPMENT

The following items of operating equipment are owned by the applicant and will be furnished for carrying on the proposed exploration program.

	Fair Market Value
Eimco Model 12B Overhead Loader	$ 2,300.00
Jaeger 125 cfm Gasoline powered air compressor	2,075.00
Thor #64 Air Leg and #38 Drill	700.00
American Hoist and Derrick, Double Drum Gasoline engine powered hoist	850.00
Single Drum Mine Hoist, variable speed electric Motor Driven	1,850.00
Sullivan Turbinaire Tugger Hoist	650.00
One ore car 1/2 cu. yd. Capacity	175.00
One ore car 2/3 cu. yd. capacity	225.00
McClintock Diamond Drill complete with rod and bits, pumps, etc.,	1,800.00
Syntron Jackhammer	600.00
Ford Dump Truck, 4 cu. yd. body	850.00
Dodge Personnel Carrier, 4 wheel drive	750.00
Ford Jeep, 4 wheel drive	350.00
Trail Packer	225.00
Pilot Retort and Condenser Unit	750.00
Miscellaneous tools, saws, rails, skips, Miner's lamps, pumps, detonator, etc.,	2,000.00
Assay Laboratory, completely outfitted	1,950.00
Office Furniture, equipment and supplies	1,000.00
TOTAL	$ 19,100.00

6.

d) OPERATING EQUIPMENT (cont'd)

The following items of operating equipment will be required to be purchased, in order to proceed with the proposed exploration program.

	Estimated Purchase Price
Deepwell Turbine Pump with vertical hollow-shaft electric motor drive, 200 Ft. setting, capacity 1,000 G.P.M., complete with reduced-voltage starter, installed	$ 3,500.00
Electric Motor Driven Air compressor, 105 c.f.m. at 100# P.S.I. complete with motor, receiver, V belts, pulleys, controls, starter and switches	2,600.00
Mine skip and cage	1,000.00
Three 75 KVA Distribution type transformers with misc. switchgear, cutouts, switches, etc.	5,500.00
Total	$ 12,600.00

e) INITIAL REHABILITATION AND REPAIRS. None.

f) NEW BUILDINGS, FIXTURES, INSTALLATIONS

Purchase and install transformer substation as outlined in "6d" above at cost of $5,500.00. A 6,800 Ft 3 phase power line will be constructed by the applicant, however the cost (estimated at $5,000.00) has not been included in this application.

Also to be purchased and installed will be the deepwell pump, electric motor driven air compressor and the mine skip and cage outlined in "6d" above, with combined cost of $7,100.00.

Construct change room, lamp room, showers and mine office at the mine ssite, at an estimated cost of $1,500.00,not included in this application.

6.

g) MISCELLANEOUS

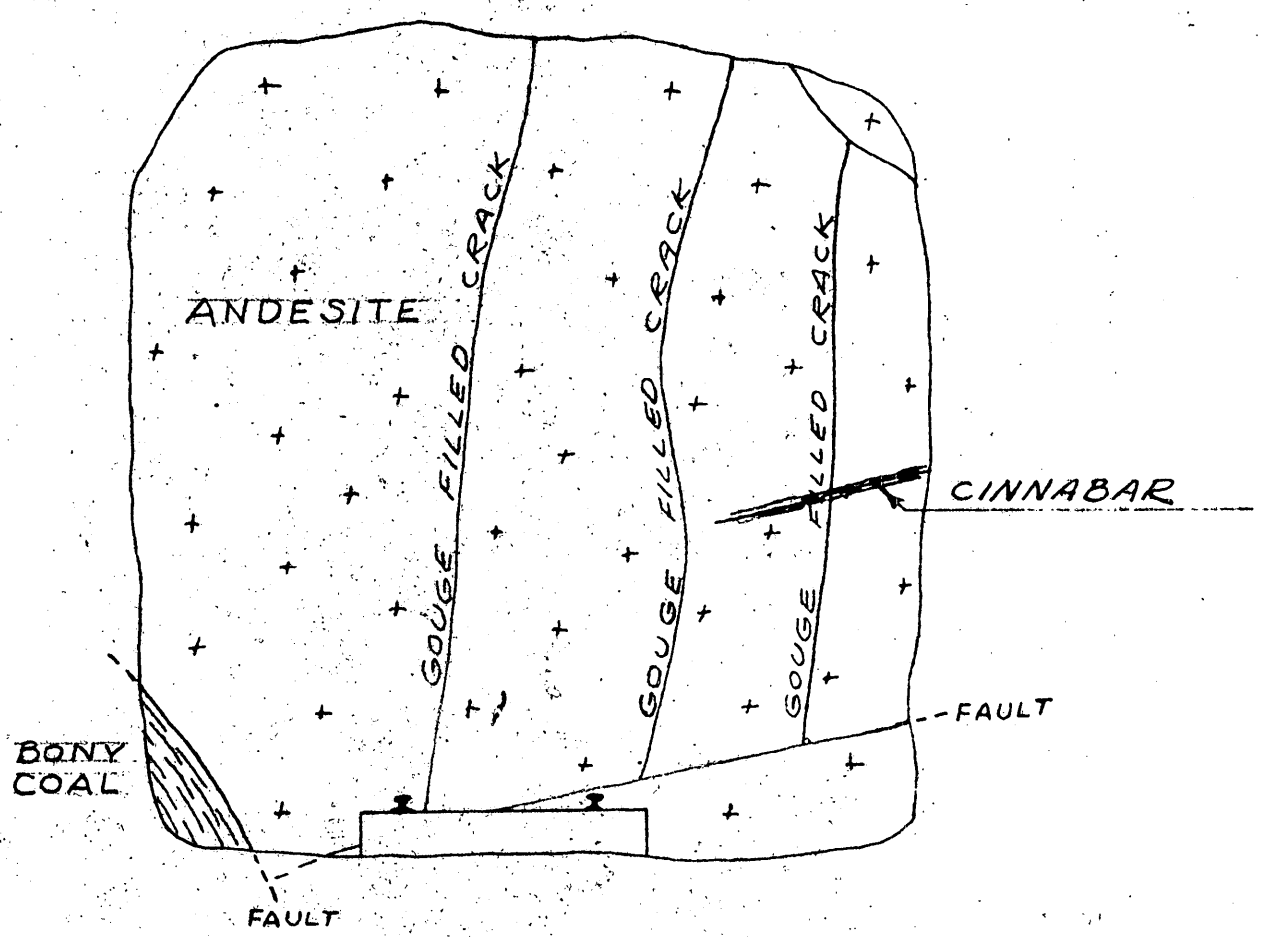
	Total
Repairs and Maintenance, $275.00 per month	$ 3,300.00
Payroll taxes, Industrial Insurance and Medical Aid taxes, $482.00 per month	5,778.00
Analytical, assaying, field accounting at $300.00 per month.	3,630.00

7.a) We are prepared to furnish our share of the cost of the proposed exploratory work in accordance with the regulations on Government participation stated in Sec. 7 of DMEA Order-1, Amended.

b) Money and use of equipment.

ADIT NO. 1 X-SECTION

DRAWING NO. 2D-6



STATION 0+10

SCALE ½" = 1'-0"

NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite and very little realgar. It is badly broken with some large goage filled cracks.

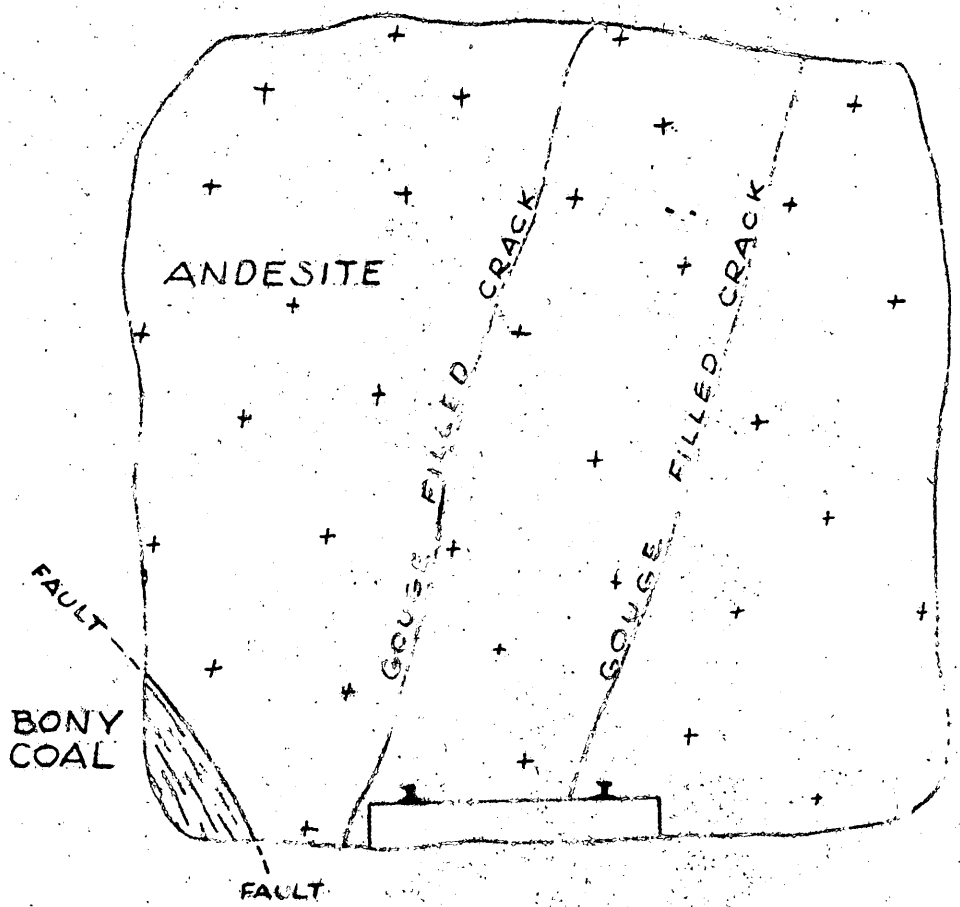
Bony coal is fractured and cemented with calcite.

A ½" × 2' fracture filled with cinnabar was encountered in right side face.

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-7



STATION 0+15

SCALE ½" = 1'-0"

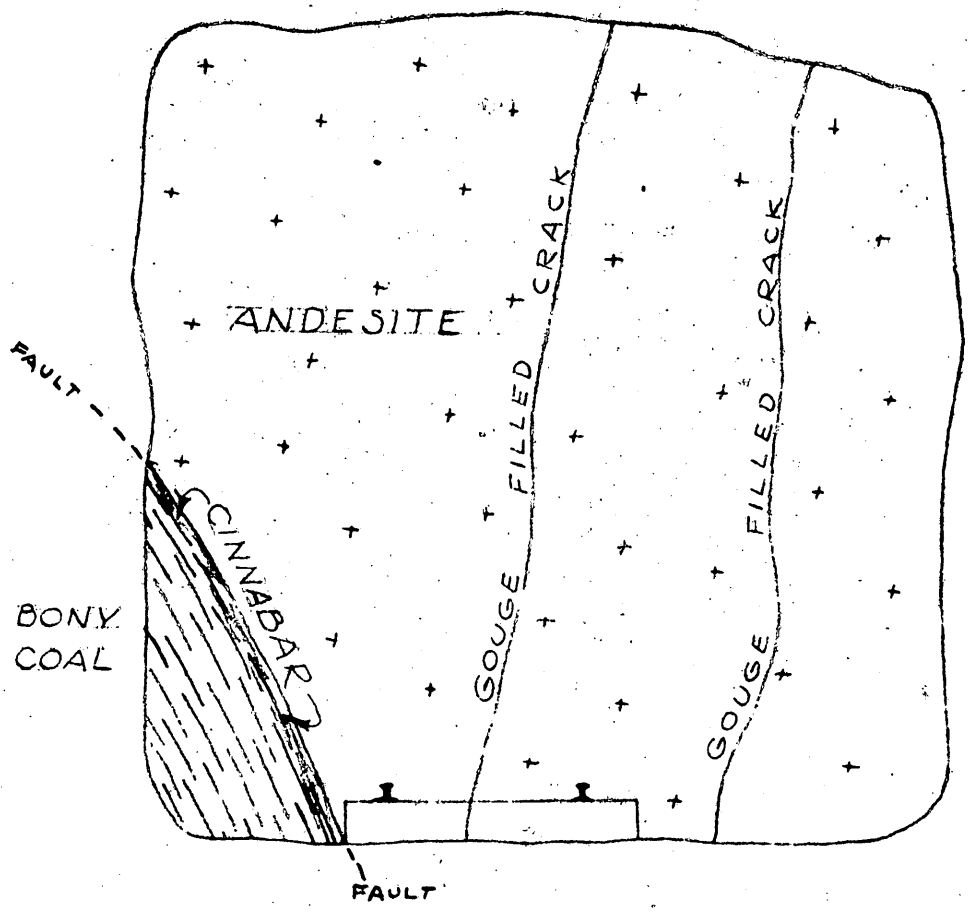
NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite and very little realgar. It is badly broken with some large gouge filled cracks.

Bony coal is fractured and cemented with calcite

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-8



STATION 0+20

SCALE ½" = 1'-0"

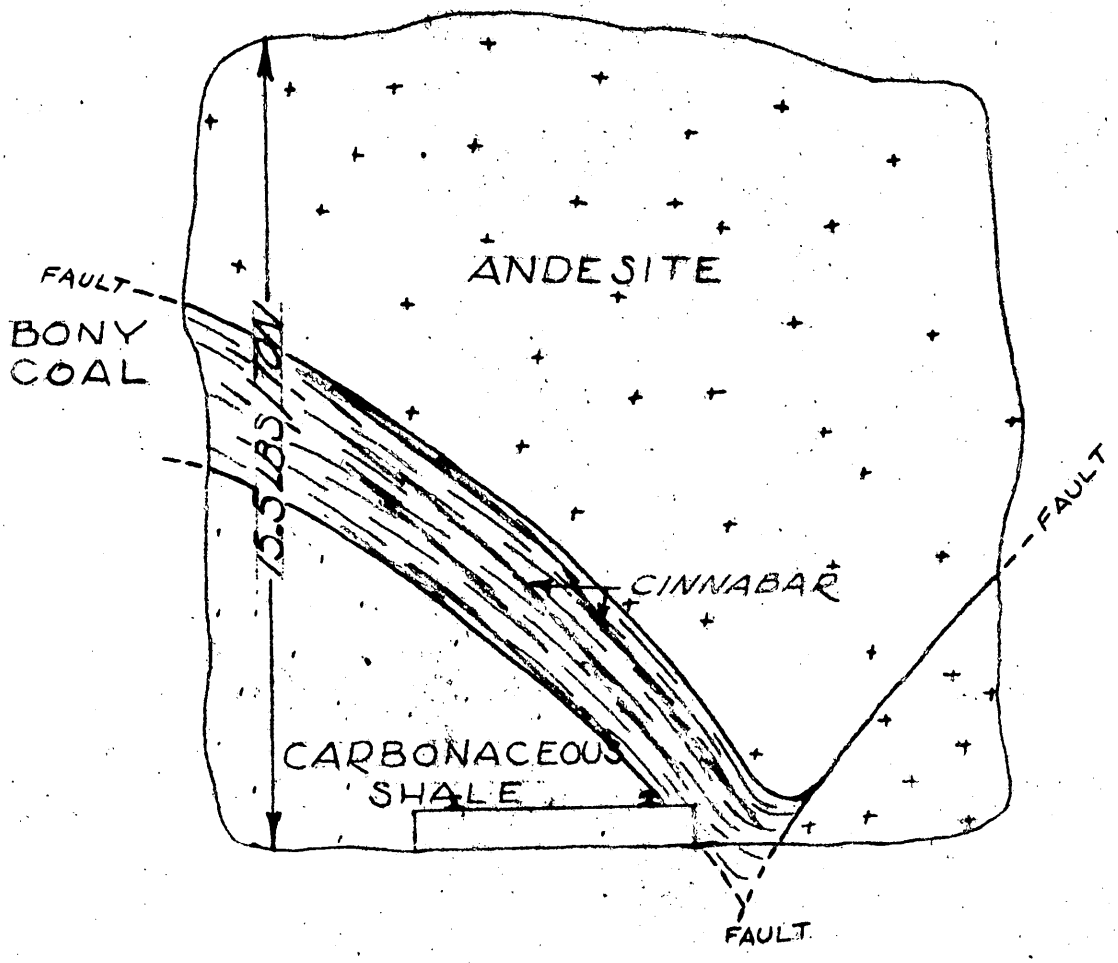
NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite and very little realgar. Some large gouge filled cracks are also present.

Bony coal is fractured and cemented with calcite also contains a thin seam of cinnabar.

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-9



STATION 0+25

SCALE ½" = 1'-0"

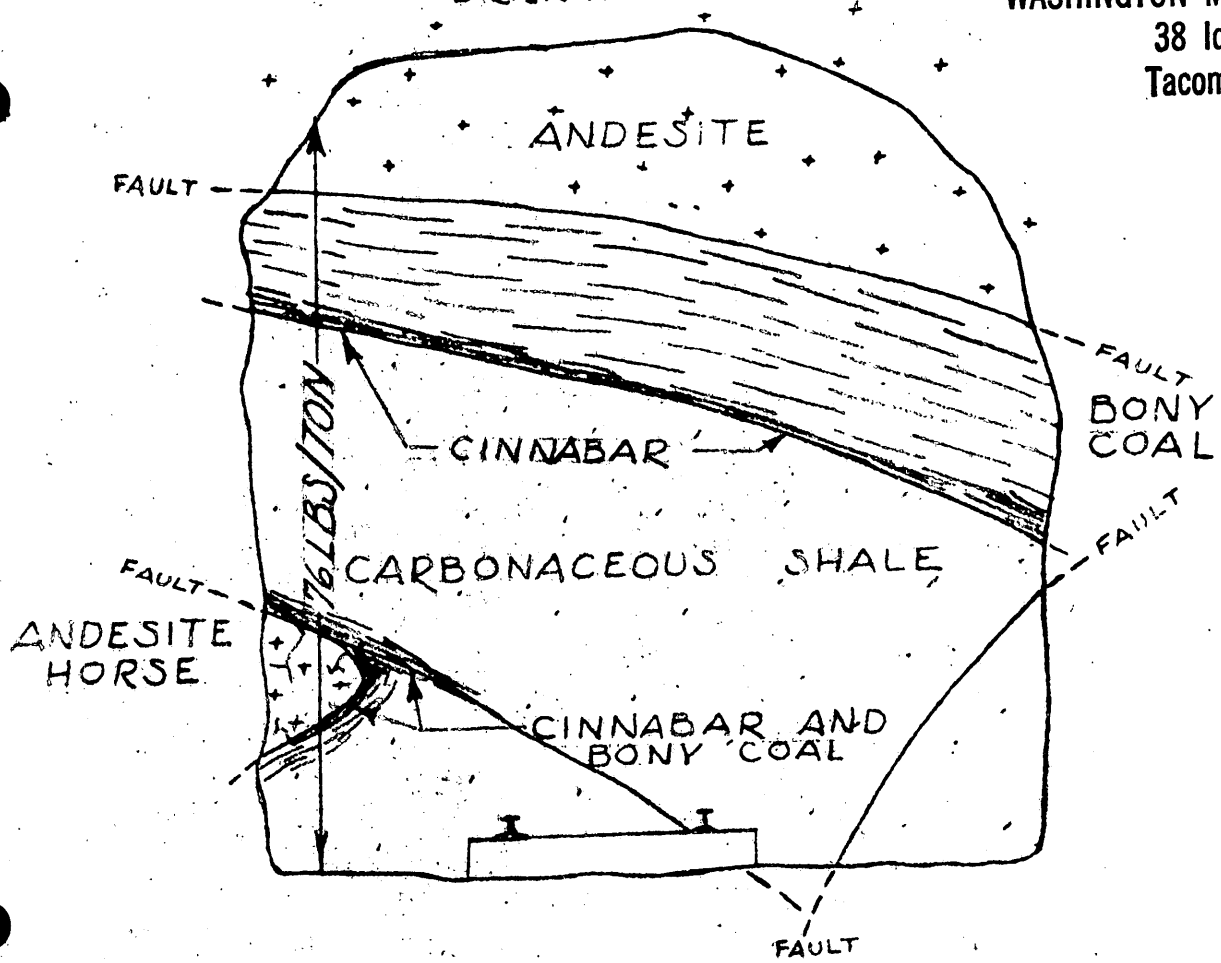
NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite, gouge and some realgar.
Carbonaceous shale is fractured and cemented with calcite also some cinnabar in fine fractures.
Bony coal is badly fractured and cemented with calcite. Contains high grade cinnabar disseminated and in pockets.

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-10

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.



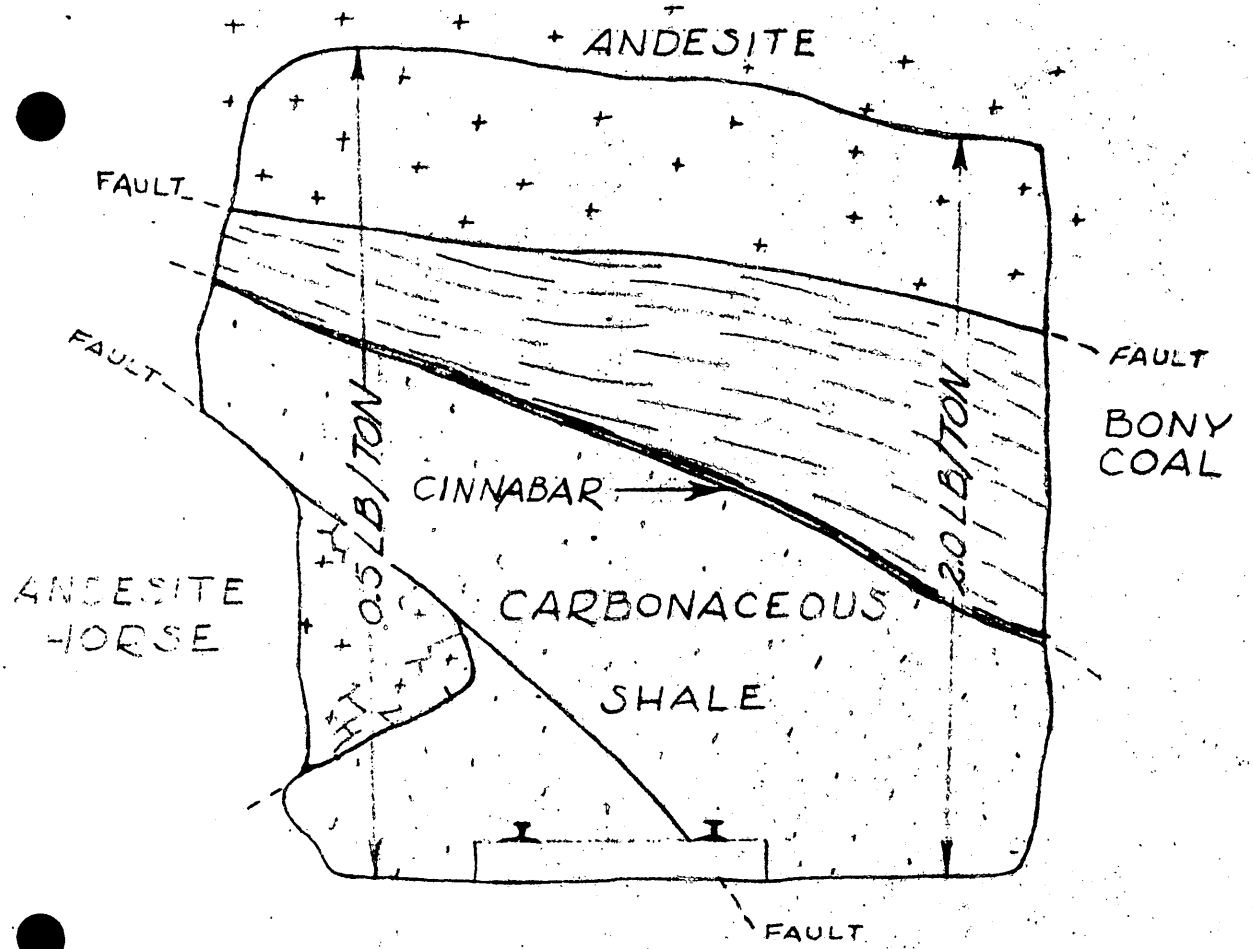
STATION 0+30

SCALE ½" = 1'-0"

NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite. The andesite horse in shale has been fractured and cemented with arsenic and calcite. Horse has 2" to 6" thickness of fine compact x-line cinnabar coating the surface. Carbonaceous shale is fractured and cemented with calcite. Bony coal is badly fractured and cemented with calcite. Disseminated cinnabar in contact with shale.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-11



STATION 0+35

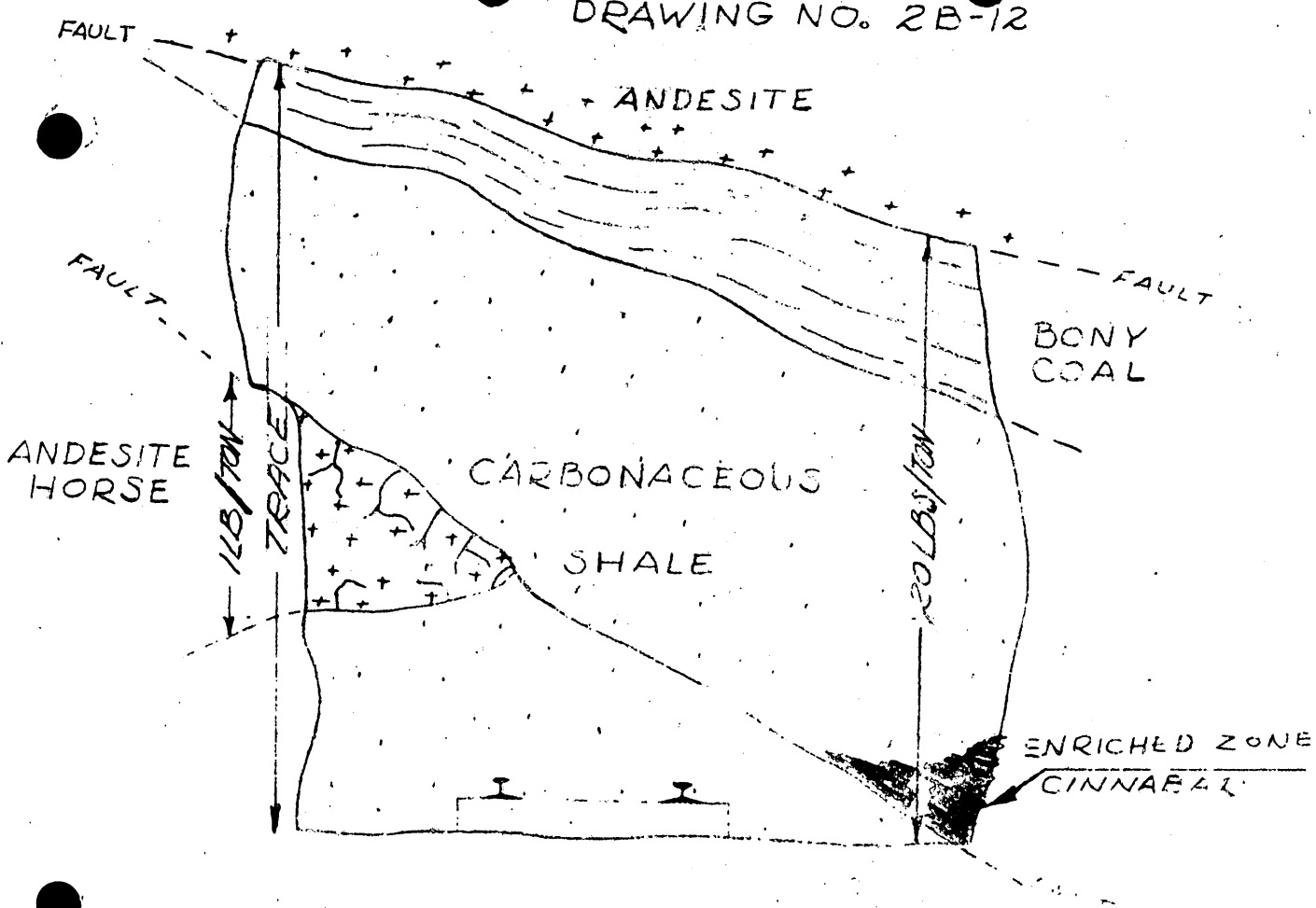
SCALE ½" = 1'-0"

NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite. The andesite horse in the shale has been fractured and cemented with arsenic and calcite.
Carbonaceous shale is fractured and cemented with calcite. Fault plane is mineralized with fine x-line cinnabar.
Bony coal is badly fractured and cemented with calcite and some finely disseminated cinnabar.

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-12



STATION 0+40

SCALE ½" = 1'-0"

NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite. The andesite horse in the shale has been re-fractured and cementing agent is fine x-line cinnabar.

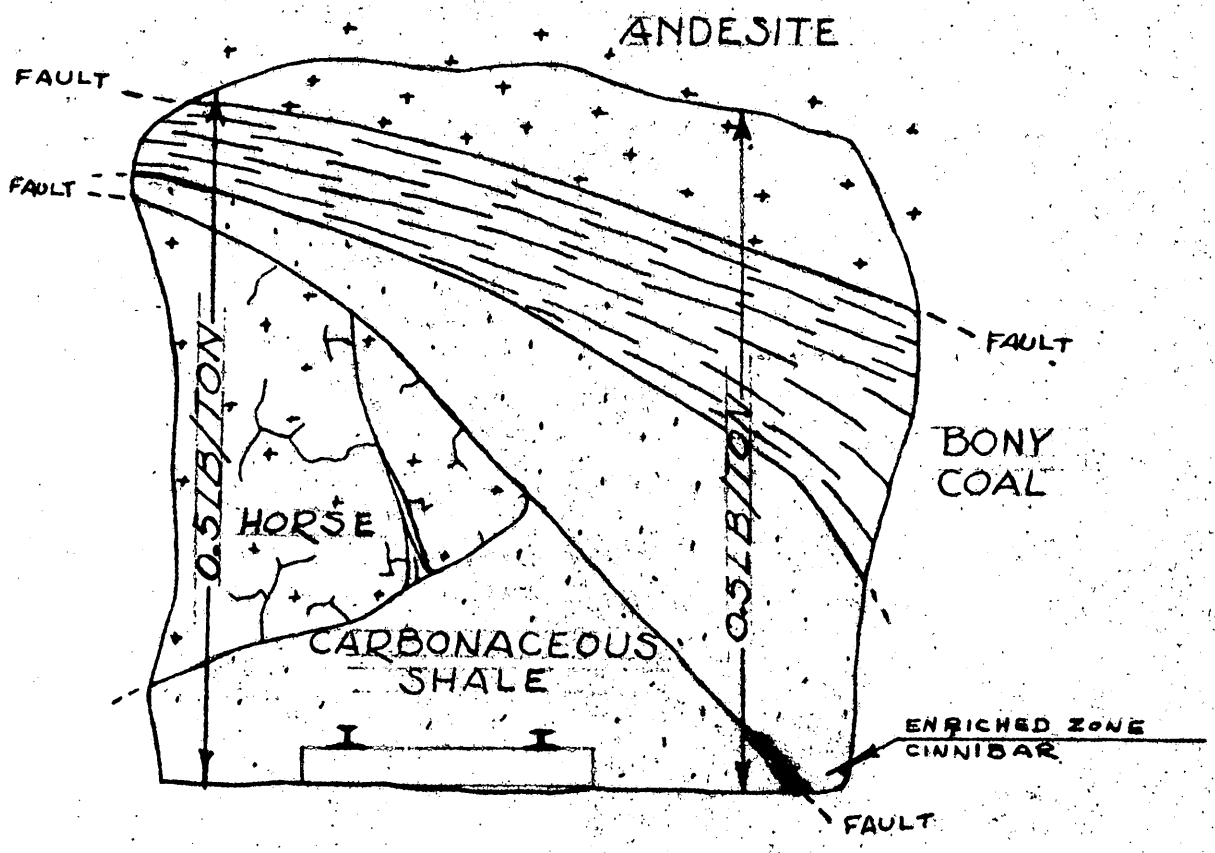
Carbonaceous shale is fractured and cemented with calcite. Fault planes are mineralized with fine x-line cinnabar.

Bony coal is badly fractured and cemented with calcite.

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-13

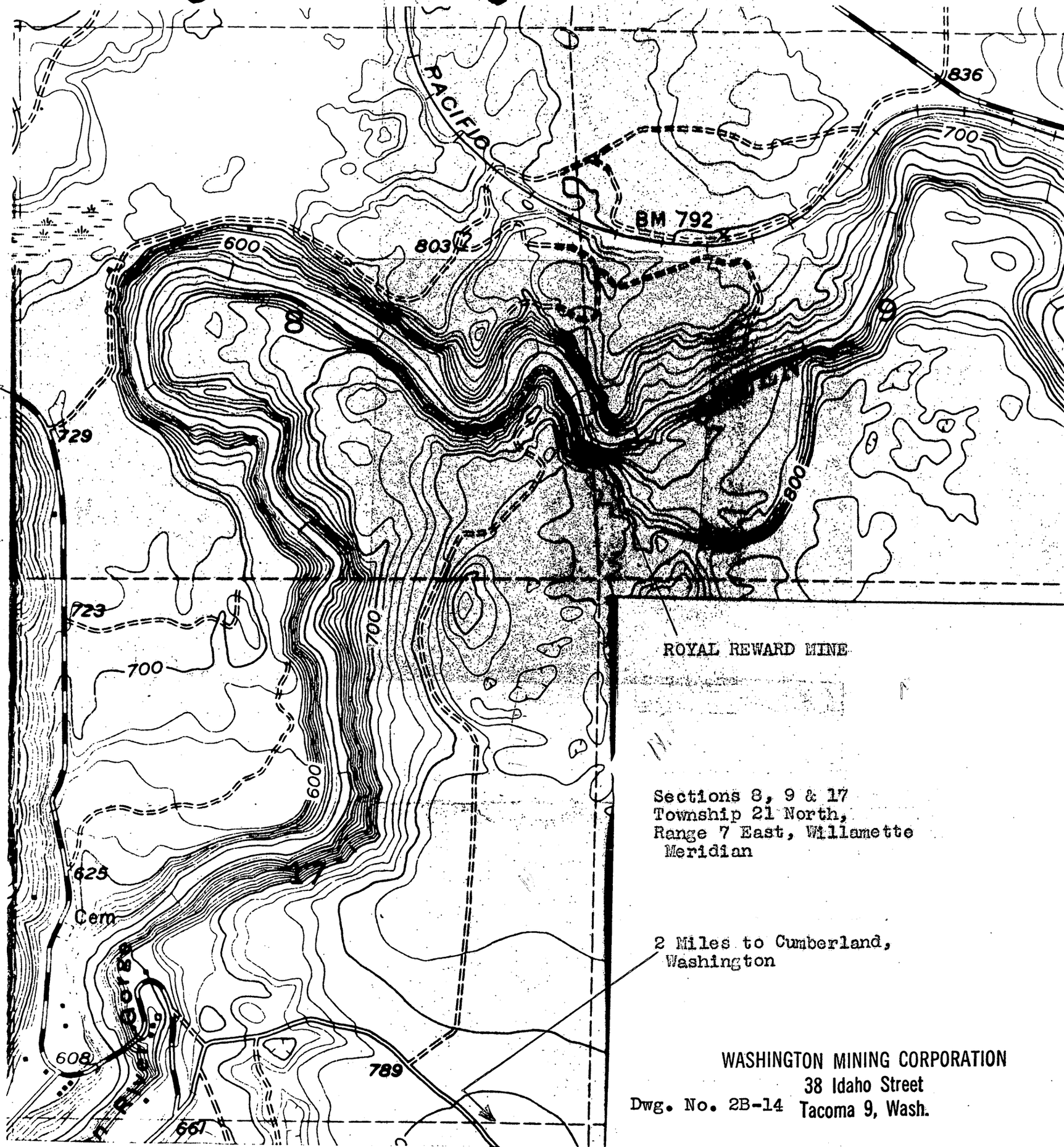


STATION 0+45

SCALE 1/2" = 1'-0"

NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite. The andesite horse in the shale has been fractured and cemented with arsenic and calcite. Carbonaceous shale is fractured and cemented with calcite. Fault plane is mineralized with fine x-line cinnabar. Bony coal is badly fractured and cemented with calcite.

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.



WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

Dwg. No. 2B-14

MANUFACTURERS OF
BALLARD'S TRIPLE DISTILLED C. P. MERCURY
BALLARD'S REDISTILLED N. F. MERCURY
BALLARD'S SPECIALLY REFINED TECH. MERCURY

DEALERS IN
PRIME VIRGIN QUICKSILVER

BALLARD'S IMPROVED
AMALGAMATOR & PLATE DRESSING

QUICKSILVER PRODUCTS, INC.

407 SANSOME STREET
SAN FRANCISCO, 11
BUTTER 1-1966

314 OMAR AVENUE
LOS ANGELES, 13
MUTUAL 9135

PURCHASED FROM

WASHINGTON MINING CORPORATION
38 IDAHO STREET
TACOMA, WASHINGTON

DATE MAY 20, 1957
YOUR ORDER NO.
OUR LOT NO. 62184
F.O.B.
SHIPPED VIA

GROSS	TARE	NET
166 1/2#	12 1/2#	154#

154# PRIME VIRGIN	@$3.19	$491.26

SETTLEMENT

WASHINGTON MINING CORPORATION	✓
ACCOUNT NUMBER	
MAY 22 1957	
APPROVED	
CHECK NUMBER	

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

MANUFACTURERS OF
BALLARD'S TRIPLE DISTILLED C. P. MERCURY
BALLARD'S REDISTILLED N. F. MERCURY
BALLARD'S SPECIALLY REFINED TECH. MERCURY

DEALERS IN
PRIME VIRGIN QUICKSILVER

BALLARD'S IMPROVED
AMALGAMATOR & PLATE DRESSING

QUICKSILVER PRODUCTS, INC.

407 SANSOME STREET
SAN FRANCISCO, 11
SUTTER 1-1980

314 OMAR AVENUE
LOS ANGELES, 13
MUTUAL 9135

PURCHASED FROM

WASHINGTON MINING CORPORATION
38 IDAHO STREET
TACOMA, WASHINGTON

DATE
YOUR ORDER NO.
OUR LOT NO.
F.O.B.
SHIPPED VIA

QUANTITY	DESCRIPTION	PRICE	AMOUNT
[illegible]	[illegible]	[illegible]	[illegible]
20 1/2 FLASKS TURN		@ $2.10	[illegible]

SETTLEMENT

WASHINGTON MINING CORPORATION

ACCOUNT NUMBER	
	JUN 2 1957
APPROVED	
CHECK NUMBER	

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

MANUFACTURERS OF
BALLARD'S TRIPLE DISTILLED C. P. MERCURY
BALLARD'S REDISTILLED N. F. MERCURY
BALLARD'S SPECIALLY REFINED TECH. MERCURY

DEALERS IN
PRIME VIRGIN QUICKSILVER

BALLARD'S IMPROVED
AMALGAMATOR & PLATE DRESSING

QUICKSILVER PRODUCTS, INC.

407 SANSOME STREET
SAN FRANCISCO 11
SUTTER 1-1988

314 OMAR AVENUE
LOS ANGELES 13
MUTUAL 9135

PURCHASED FROM

WASHINGTON MINING CORPORATION
TACOMA
WASHINGTON

DATE JUNE 6, 1957
YOUR ORDER
OUR LOT NO. 18039
F.O.B.
SHIPPED VIA

GROSS	TARE	NET
84 1/4#	6 1/2#	77 3/4#

77 3/4# PRIME VIRGIN	@ $3.19	$248.02

SETTLEMENT

WASHINGTON MINING CORPORATION
ACCOUNT NUMBER
JUN 1957
APPROVED
CHECK NUMBER

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

ADDRESS REPLY TO
UNITED STATES ATTORNEY
AND REFER TO
INITIALS AND NUMBERS

AES:ll

8012 (Lands)

United States Department of Justice

UNITED STATES ATTORNEY

WESTERN DISTRICT OF WASHINGTON
UNITED STATES COURT HOUSE
SEATTLE, WASHINGTON 98104

July 3, 1972

COPY
O. ... E.
RECEIVED
JUL 8 1972
INITIALS | CODE
Raw Photo ID
HK 120
220

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Harold Kirkemo
Chief, Office of Minerals Exploration
U. S. Department of the Interior
Geological Survey
Washington, D.C. 20242

Re: Your File -
DMEA-4775 (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Kirkemo:

There is returned herewith the entire file which you loaned us by your letter of May 8, 1972. It was exceedingly helpful background information in our condemnation negotiations and trial. The other side had claimed some $20,000 with respect to the mining property and a land figure of $7,500. Our position was that no damage had been done to the mining property and that the market for mercury and arsenic did not economically justify reopening the mine. Ultimately the defendants abandoned their claim for mining damages and the jury awarded the precise amount of our just compensation figure of $2,950.

Thanks again for your help.

Sincerely yours,

STAN PITKIN
United States Attorney

Albert E. Stephan (KP)

ALBERT E. STEPHAN
Assistant U. S. Attorney
Chief, Civil Section

Enclosure

MMS Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/8/72		120
		220

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

MAY 8 1972

Mr. Albert E. Stephan
Assistant U. S. Attorney
Western District of Washington
United States Court House
Seattle, Washington 98104

Your File AES:11
8012 (lands)

Re: DMEA-4775 (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Stephen:

Your request dated April 18, 1972, to Mr. Galen G. Waddell, Acting Director, Spokane Mining Research Center, Bureau of Mines, Spokane, Washington, for our file on the subject property, was referred to this office for reply. The file may be of interest to the Government in a condemnation proceeding for the Bonneville Power Administration.

We enclose our complete file on this docket and would appreciate that it be returned after serving your needs. We understand that the docket will be studied by Mr. B. I. Larsen, geologist, in your offices and will not be introduced as an exhibit in the court proceedings. Material furnished by an applicant to the Government on both DMEA and OME, successor to the DMEA program, is treated as confidential information. We would appreciate that the confidentiality be retained.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

cc: Galen G. Waddell USBM, Spokane, Wash.
Willard P. Puffett, OME Region I, OME
cc: Director's Reading File
Mineral Resources
OME File

OME Reading File
Mr. Kirkemo

HKirkemo/gla 5-8-72

Western Field Operation Center
May 2, 1972

OFFICIAL
COPY
O. E. E.
RECEIVED
MAY 8 1972
INITIALS
HK 120

Mr. Albert E. Stephan
Assistant U.S. Attorney
Western District of Washington
United States Court House
Seattle, Washington 98104

Dear Mr. Stephan:

Your letter to Mr. Galen Waddell has been referred to me for reply. We are no longer involved in DMEA work and we have not maintained any DMEA records; therefore, I am forwarding your request on to Mr. Harold Kirkemo who is Chief of the Office of Mineral Exploration for the U.S. Geological Survey.

Sincerely yours,

R. N. Appling, Jr., Chief
Western Field Operation Center

RNAppling:dl

cc: Harold Kirkemo, USGS
SPWimpfen
Chief, Div. Field Operations
SO
Df

ADDRESS REPLY TO
UNITED STATES ATTORNEY
AND REFER TO
INITIALS AND NUMBERS
AES:11

8012 (Lands)

United States Department of Justice

UNITED STATES ATTORNEY
WESTERN DISTRICT OF WASHINGTON
UNITED STATES COURT HOUSE
SEATTLE, WASHINGTON 98104

Appleby

SMRC
APR 20 1972
AD
AS
1 GS
RD
SS
WD
2 Waddell KCD Drw

April 18, 1972

RECEIVED
BUREAU OF MINES
WESTERN FIELD OPERATION CENTER
MAY 1 1972
SPOKANE, WASH.

Mr. Galen G. Waddell
Acting Director, Spokane Mining
Research Center
Bureau of Mines
U. S. Department of the Interior
N 1430 Washington Street
Spokane, Washington 99201

Re: Royal Reward Mine of Washington Mining Corp.;
Location: Section 8, Township 21N, Range 7E,
WM, King County, Washington.

United States v. Washington Mining Corp., et al.
USDC, W.D. Washington, Civil No. 8012

Dear Mr. Waddell:

We represent the United States in a condemnation proceeding for Bonneville Power Administration. The transmission lines which are the subject of this litigation traverse the Royal Reward Mine location.

A letter in our files to the Securities and Exchange Commission, Seattle, Washington, Attention of Mr. Newton, November 5, 1958, from Marshall Hunting, Supervisor, Division of Mines and Geology, Department of Conservation, State of Washington, reports that your office made a study of this property for the defense minerals exploration loan in 1957 or 1958.

We would appreciate it if you could loan us your entire file on this matter and we would give you a receipt therefor. The purpose is to make it available for study by our geology expert in the condemnation litigation, Mr. B. I. Larsen.

If you have any questions about this, please contact me at area code 206, 442-7970, or Mr. Larsen at area code 206, MA 4-0905.

Very truly yours,

STAN PITKIN
United States Attorney

ALBERT E. STEPHAN
Assistant U. S. Attorney

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Chief, Office of Minerals Exploration

DATE: May 1, 1972

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 3 1972

INITIALS	CODE
	120

FROM : Field Officer, Region I

SUBJECT: Re: DMEA 4775 (Mercury)
Washington Mining Corp.
King County" Washington

file ordered from Rec Center

Attached is self-explanatory letter from the United States Attorney office. I will assume that you will arrang an answer and action.

Willard P Puffett

Willard P. Puffett

ADDRESS REPLY TO
UNITED STATES ATTORNEY
AND REFER TO
INITIALS AND NUMBERS
AES:11

8012 (Lands)

Weisenborn

SMRC
APR 20 1972
AD
AS
1 CS
RD
SS
WD
2 Waddell
KCD Dew

United States Department of Justice

UNITED STATES ATTORNEY
WESTERN DISTRICT OF WASHINGTON
UNITED STATES COURT HOUSE
SEATTLE, WASHINGTON 98104

April 18, 1972

RECEIVED
MAY 1 1972
O. M. E.
SPOKANE, WASH.

Mr. Galen G. Waddell
Acting Director, Spokane Mining
Research Center
Bureau of Mines
U. S. Department of the Interior
N 1430 Washington Street
Spokane, Washington 99201

DMEA 4775

Re: Royal Reward Mine of Washington Mining Corp.;
Location: Section 8, Township 21N, Range 7E,
WM, King County, Washington.

United States v. Washington Mining Corp., et al.
USDC, W.D. Washington, Civil No. 8012

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We would appreciate it if you could loan us your entire file on this matter and we would give you a receipt therefor. The purpose is to make it available for study by our geology expert in the condemnation litigation, Mr. B. I. Larsen.

If you have any questions about this, please contact me at area code 206, 442-7970, or Mr. Larsen at area code 206, MA 4-0905.

Very truly yours,

STAN PITKIN
United States Attorney

ALBERT E. STEPHAN
Assistant U. S. Attorney

Copied from Engineering and Mining
Journal - Vol. 159, No. 5,
Page 174 - MAY 1958

Washington Mining Corp. is producing cinnabar at one mine in the in the Green River Canyon, six miles from Enumclaw, expects to have a second in operation within a year.

Secretary of the corporation is Ron Ljungahl, Enumclaw, who discovered the ore deposit four years ago with Laurence Berkshire of Palmer, now vice president in charge of exploration.

The richest ore, reportedly running as high as 1,000 to 1,200 lb. of mercury per ton, is being processed in a pilot plant with a one-ton retort. Early samples indicate that the ore will yield up to 24 lb. of mercury to the ton.

Burton Avery, former superintendent of the Bonanza mine in Sutherline, Ore., will take over this month as superintendent of the first mine, known as the Royal Reward. He will succeed Ljungahl, who has been acting as mine superintendent.

At Royal Reward, two shifts of miners have bored an access tunnel 36 ft into the hillside, and work is about to begin on a shaft 270 ft. deep to the orebody. At the 250-ft mark, the miners will branch out with 1,000-ft-drifts in several directions. Work was scheduled to start April 15 on an access road to the second mine, the Cardinal Reward.

Company officials describe the Royal Reward as the "only producing mercury mine in Washington state."

So. 157 Howard Street
Spokane 6, Washington

September 16, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED SEP 25 1959

DATE	INITIALS	[illegible]
9-25	gad	VVO
9/25	[illegible]	800
		~~500~~
		225

Docket # OME H-4775

Mrs. Katherine Mann
12105 Marine View Drive
Seattle 66, Washington

Dear Mrs. Mann:

Your letter of August 20, 1959, addressed to the attention of Mr. Don Eberlein at the Menlo Park, California office of the U. S. Geological Survey has been forwarded to this office for reply.

Two of our field men examined a mercury prospect on the Green River in King County, Washington, in 1957 but we do not have any report we can give you. However, if the company is selling stock, the Securities and Exchange Commission, 905 - 2nd Avenue Building, Room 304, Seattle, Washington, should be able to give you the sort of information you desire.

Sincerely yours,

Donald L. MacLaren
Alternate Acting Executive Officer
OME Field Team, Region I

cc: OME (2)
USBM
E. H. Bailey, Menlo
Hank Waldron, Denver

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4-25	Martin	400
4/25	[illegible]	130
"	Johnson	110
"	Butterworth	120

APR 25 1958

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

Re: Docket No. DMEA 4775 - Mercury
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Weissenborn:

On April 22, 1958, Mr. John A. Roller, president of the subject corporation, telephoned to ask if and how he could apply for a revised exploration program. W. S. Martin, who took the call, said that inasmuch as our denial of March 24, 1958, was made without prejudice to the property he could send to us, or to you, a new application, which would not have to include any repetition of material provided before, but would have to show that significant new information had resulted from any recent work completed.

Mr. Roller was told that the Government contribution to any work program that might now be recommended would have to be at the rate of 50 percent. He was also told that there was no assurance that the DMEA program would be continued after June 30, 1958, and that he might save time by advising you beforehand if he planned to submit a new application. Thus, provided you expected to have an engineer in his vicinity, you could schedule an examination if another application showed you that enough new geological information had been exposed.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JB)

APPROVED:

Frank D. Lamb (JB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JB)
Member, Geological Survey

WSMARTIN/dlm 4-25-58
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. I
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

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DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3-19	Chapman	400
3-19	Martin	400
		110
		100

March 19, 1958

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Denial of the subject application for exploration assistance in the amount of $122,000.00
Docket No. DMEA 4775 - Mercury
Washington Mining Corporation
Royal Reward Mine
King County, Washington

A denial, without prejudice to the property, of the subject application for exploration assistance is recommended by this Division based on the following information:

The above-noted property was the subject of a request dated June 24, 1957, for exploration assistance at an estimated cost of $122,000.00 for an access adit, raising, shaft sinking, drifting and diamond drilling. The property was examined on June 27, 1957, by E. A. Magill, Bureau of Mines, and R. D. Sample, Geological Survey, accompanied by John Roller, L. V. Berkshire, R. N. Ljungdahl and H. S. Baarslag, Jr., representing the Applicant.

Applicant:
Washington Mining Corporation
38 Idaho Street
Tacoma 9, Washington

Property Ownership:
The property owned by the Applicant included in the application, consists of 40 acres, the NE$\frac{1}{4}$ of the SE$\frac{1}{4}$, section 8, T. 21 N., R. 7 E., Washington Meridian, King County, Washington.

The property to the east and west is controlled by the Applicant by prospecting leases from the Northern Pacific Ry. and the Weyerheauser Timber Company, but are not included in the application.

Geology: This area is an old coal mining district with an alternation of slates, carbonaceous shale, coal beds and sandstone intruded irregularly by andesite dikes and sills. The dominant structure

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is an asymmetrical anticline which has been bisected by a low angle thrust fault. Minor faults and joint cracks are found along the crest of the anticline.

Cinnabar, realgar and orpiment are found in the bony coal beds, carbonaceous shale beds and altered andesite sill. Concentration of the minerals are found in the faulted and shear zones of the anticlinal structure.

Past History and Development:

While cinnabar had been found in the area, it was not noted until 1957, that it might be commercial. After prospecting the river banks the Royal Reward area was found and a 50 foot adit was driven into the anticline area, and an experimental furnace was erected.

Ore Values and Tonnage:

From 5 faces as the adit advanced eight channel samples were taken by the Applicant with an average value of 14.4 pounds of mercury per ton. The following samples were taken by the examining team:

Sample No.	Width feet	Hg lbs./ ton	As %	Description
EAM-5	5.0	0.8		40 ft. from portal adit
EAM-6	Grab	1.4	0.18	Adit dump
EAM-7	Grab	6.8	0.09	Stock pile at hoist station above adit

Four flasks of mercury were produced from selected ore averaging about 20 pound per ton. This is the total production from the property. Insufficient work has been done to make an estimate of ore tonnages.

Applicant's Proposal:

The Applicant proposed sinking a 270 foot shaft, drifting and crosscutting 900 feet, raising 150 feet and 200 feet of diamond drilling, at an estimated cost of $122,005.00

Field Team's Proposal:

Drift 200 feet southerly on fault or mercury mineralization, crosscut westerly 50 feet, cut core drill station, diamond

drill 1,000 feet from drift and crosscut to explore structure at depth. If this shows mercury mineralization, then sink from surface a 200 foot shaft; from shaft, drift and/or crosscut 500 feet, at an estimated cost of $67,896.00

DMEA's Proposal
Washington:

First, sink a winze from the present adit following ore; if results are favorable then other work would be considered. Applicant does not care for this work and is going ahead on its proposal.

Comments
and
Conclusions:

The examining team recommends a contract as presented above. The Field Team concurs in this proposal. The Washington office does not concur in this proposal and suggests a winze from present adit. The Applicant does not concur in this proposal.

The Commodity Divisions of the Geological Survey, and the Bureau of Mines, concur in the conclusions and recommendations of the Field Team.

Under the circumstances the application is being denied without prejudice to the property.

W S Martin
W. S. Martin, Director
Division of Iron and Ferro-Alloys

TLCHAPMAN/dlm
cc to : Docket
Admr. R. File
Oper. Comm.
Mr. Johnson

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3-19	Chapman	400
3-19	Martin	400
3/24	Selfridge	130
3/24	Lewis	130
3/24	Kiilsgaard	130
"	Johnson	110
"	Buttedo	100
		220

MAR 24 1958

Washington Mining Corporation
38 Idaho Street
Tacoma 9, Washington

Re: Docket No. DMEA 4775 - Mercury
Royal Reward Mine
King County, Washington

Gentlemen:

Your application for aid for an exploration project and other data available to us in Washington concerning the above-referenced property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgement, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our data indicates that, although mercury mineralization occurs on the property, the probability of disclosing significant reserves by your proposed program is not sufficently promising to justify Government participation. We regret to advise you, under these circumstances, that your application is denied. Such denial, however, is made without prejudice to the property.

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

Sincerely yours,

Administrator

TLCHAPMAN/dlm 3-19-58
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. I
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

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Excerpt from Mr. Mittendorf's diary, 3/11/58:

Mr. Roller, of Washington Mining Corp., called again late this afternoon. He wanted to know what was new on his case.

I told him we had received a memo. from the field team outlining their recent discussion with him;that it also gave us their views and said the field team believes, as do we in Washington, that we cannot justify participation in his new adit and shaft sinking proposal based on our knowledge of the ore occurrences at this time. I reiterated that for this reason the field team suggested the alternate program of diamond drilling and we countered with a proposal of winzing.

He repeated that neither was acceptable.

I told him this put us right back where we were in the first place. I regretted that we could not participate with him in the shaft job.

He thanked me for our time and consideration.

I presume the next step is to issue a letter of denial. This should be cast as a denial of the program which they proposed, and also be made without prejudice to the property.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 10 1958

DATE		CODE
3/11	C	220
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March 6, 1958

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

Re: Docket No. DMEA-4775 (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Selfridge:

This is in further reference to your teletype of March 4, 1958, and our reply.

We called Mr. John A. Roller, President of Washington Mining Corporation, and asked for his views regarding a winze on the ore from the existing tunnel. He told us that he has already started the new crosscut and has found small seams of cinnabar in the andesite. He and his associates believe that this is most encouraging and have decided to continue with their plans of a crosscut about 100 feet long from the face of which they will raise 50 feet to the surface and install a headframe. They will then sink their shaft to a depth of 200 feet from this surface. At depths of 100 and 150 feet they will crosscut to the bony coal in the west limb of the anticline and at about 200 feet they expect the shaft to cut this horizon.

We suggested to Mr. Roller that he would be well advised to consider winzing on the ore to be sure that it is not a shallow occurrence limited to the crest of the anticline. He replied that, in the first place, the only means of disposing waste rock from a winze in the old adit is to dump it in the river and that this would result in violating the nonpollution laws of the state, a serious matter in Washington. By driving the proposed crosscut and raising to the surface, they would have ample ground for a waste dump. In the second place, the company has embarked on floating a bond issue for funds which has committed them to the crosscut-raise-shaft procedure. They have already started the crosscut and have found cinnabar filled seams in the andesite. They feel that this plus the occurrence of cinnabar concentrations in the bony coal and in the underlying shale across the river is

sufficiently encouraging to induce them to continue with their shaft. They feel that the proposed drilling might not give the desired information and are not now interested in a diamond drilling program such as the Field Team had suggested.

Mr. Roller made several proposals for possible DMEA aid in the future. The first was if the company drove the crosscut, raised to the surface and erected the headframe, hoist house, compressor house, etc., and installed the surface plant, would DMEA participate in the 150 feet of winzing below the crosscut level. We told him that was very doubtful and that we could not make a very strong case in favor of shaft sinking in view of the present limited knowledge of the ore controlling elements. He then asked if the 100 level crosscut from the shaft (50 feet below the level of the adits) should find ore in the anticline, would DMEA aid with the rest of the sinking, crosscutting and drifting. We told him that in such an event the project would certainly look more encouraging and that a proposal at that time would be given consideration providing DMEA was still accepting applications.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

cc: USBM (2)
Albee

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AXXXXXXX-029K

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BUREAU OF MINES
PUBLIC RELATIONS SERVICE
ADM - COMMUNICATIONS

GEORGE C. SELFRIDGE, CHAIRMAN OPERATING COMMITTEE

DMEA

DEPT. OF INTERIOR WASHN., D. C.

REURTT MARCH 4 1958, DOCKET DMEA 4775, WASHINGTON MINING CORPORATION, ROYAL REWARD MIN. OPERATOR UNWILLING TO SINK WINZE FROM EXISTING ADIT BEACUSE THE ONLY WAY TO DISPOSE OF WASTE ROCK IS TO DUMP INTO STREAM WHICH WOULD CAUSE POLUTION DIFFICULTIES. ALSO HE IS CONVINCED HE WILL HAVE TO SINK SHAFT EVENTUALLY. LETTER SUMMARINWNG CONVERSATION FOLLOWS.

A. E. WEISSENBORN, EXECUTIVE OFFICER - REGION 1.

4 1958 4775

VA 0832U

MAR 6 1 05 PM '58
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

DMEA-4775

Excerpt from Mr. Mittendorf's diary, 3/5/58:

Shortly after lunch Mr. Roller, president of the Washington Mining Corp., DMEA-4775, endeavored to reach me by phone. I stalled until I could review the docket. I learned immediately that this was a case which was discussed at some length last Thursday when Al Weissenborn was in town.

I recalled that we sent a teletype to the field only yesterday asking that an expression be obtained from the operator as to his willingness to sink a winze from existing workings, with possible drifting and crosscutting, as an alternative for his new adit and shaft program.

It took a little time to familiarize myself with this case. George took time out from the Committee to brief me.

I found Roller to have an excellent telephone personality and I enjoyed my conversation with him. He said MacLaren had phoned him this morning and revealed the contents of our teletype. He wanted to know a little more about our attitude back here so as to have a better understanding of why we made this new proposition.

I told him we did not like the drilling approach very much. We felt that considerable funds would be spent in underground workings in order to establish the drill stations and we were afraid the results of the drilling would be questionable and in the end we would wind up with nothing.

He agreed wholeheartedly with that opinion. He said they had done considerable drilling, but results were not satisfactory. Core recovery was poor. He felt that drilling was alright occasionally for structural information.

I told him we could not justify the new adit and shaft on the evidence now in hand. That is why we suggested the winze. We felt it would give us more reliable information on ore occurrences.

He was opposed to the winze idea, first because he said it would cost almost as much as the shaft. I questioned this statement.

Again, he said it would be an awkward working facility and could not take the place of a working shaft. I agreed with him on that score, adding that it was intended only as an exploration medium.

He informed me that they are going ahead with a new adit and now have eight men employed. They plan to raise the shaft to the surface and thereafter sink 150 ft. below the adit level, at which point they will cut their first station.

He wanted to know if we would participate in sinking below the adit level. I wouldn't give him an answer, but promised to discuss the proposition internally. I felt that the same objections we had to driving the adit and raising

to the surface would hold true with respect to sinking below the adit level. I told him I must await reaction from our field team, which I was sure we would get in the next few days.

He made it clear that he would not wait for a decision on our part because he is anxious to get this work done before the spring run-off swells the river.

He mentioned that they have picked up a few stringers of cinnabar in the andesite while drifting the new adit.

He mentioned that he has an excellent crew and what he considers to be a good little organization. He recently obtained four miners from the Bonanza Oil and Mercury outfit. Avery, of that firm, is also joining his organization.

I took the liberty of asking how Bonanza was coming along because I wondered why Avery was pulling out. He said Avery told him the grade of the ore gets lower and lower each week. He also mentioned that the new orebody they were looking for on about the 1200 level failed to materialize.

Roller told me he discussed all these points with MacLaren this morning.

file: Bonanza
Jackets

Excerpt from Mr. Mittendorf's diary, 3/5/58:

In telephone conversation with Mr. Roller, president of Washington Mining Corp., he mentioned that he recently obtained four miners from the Bonanza Oil and Mercury outfit. He said Avery, of that firm, is also joining his organization.

I took the liberty of asking how Bonanza was coming along because I wondered why Avery was pulling out. He said Avery told him the grade of the ore gets lower and lower each week. He also mentioned that the new orebody they were looking for on about the 1200 level failed to materialize.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3-4	Holt	400
3-4	Martin	400
3-4	Selfridge	130
"	Johnson	110
"	Cattendorf	100
3/4	C	~~340~~ 220
		400

MAR 4 1958

INTERIOR

DMEA

T E L E T Y P E

XXXXXXXXXXXXXXXXXXXXXXXX

14X4401 (01 Revolving Fund, Defense Production Act, Interior (Transfer to Office of Secretary)

MR. A. E. W[illegible]ENBORN, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION I
SOUTH 157 HOWARD STREET
SPOKANE 4, WASHINGTON

RE OUR CONFERENCE HERE FEBRUARY 27 DOCKET DMEA 4775 WASHINGTON MINING CORPORATION, ROYAL R WARD MINE, PLEASE OBTAIN FROM APPLICANT EXPRESSION OF OPINION ON WILLINGNESS TO SINK EXPLORATORY WINZE FROM EXISTING ADIT ON ONE STRUCTURE WITH ATTENDANT DRIFTING AND CROSSCUTTING. WE DO NOT BELIEVE PROPOSED SHAFT CAN BE JUSTIFIED YET, AND ARE UNWILLING TO APPROVE DRIVING NEW ADIT FOR DRILL STATIONS WHEN VALUE OF DRILLING IS QUESTIONABLE AT THIS TIME.

George C. Selfridge

(26)

CHAIRMAN, OPERATING COMMITTEE

SPHOLT/dlm 3-4-58
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

ORIGINAL COPY
DMEA
RECEIVED FEB 20 1958
DATE | | CODE
2/20 | C | 220
| WSM | 400

February 17, 1958

Air Mail

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

Re: Docket No. DMEA-4775 (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Selfridge:

This is in reply to your letter of January 16, 1958, in which you raise certain questions regarding this property.

Enclosed are the original and three copies of a memorandum from E. A. Magill, Mining Engineer, Bureau of Mines, in which he presents answers to each of your questions and makes a few additional observations. Also enclosed are two maps, a geologic map compiled from field sketches made by R. D. Sample and E. A. Magill and from the sections submitted by the company, and a surface map prepared by surveyors of the company.

With the geologic map we have prepared two cross sections and indicated several possible drill hole locations. Although they are not shown on the map, we also considered the possibility of drilling relatively flat holes from the bottom of the cliff that would explore both limbs of the anticline and the thrust fault that Magill believes may be one of the ore controls. However, Magill states that the cliff is too steep for drill stations except at the base. Drilling from here would be possible only during periods of very low water and even then the hazards of flash floods make such an undertaking too risky. We have also considered drilling from the relatively flat surface back from the cliff brow, but glacial debris is thick and full of large boulders making this approach too costly to be practicable. Therefore, drilling from underground stations is the most feasible approach.

Section A-A' shows two possible drill sites from which to explore the west limb of the anticline and the fault. Holes drilled from 100 feet west of the drift will give a better angle

2/20/58
Copies to:
BSM
E.S.

of intersection with the beds than holes drilled only 75 feet from the drift. Holes drilled from either of these stations would have to be flat and long to explore the east limb; steeper holes would cut the beds in the east limb at a bad angle and could easily be deflected to such an extent that they might end up following the bedding. Holes flat enough to give better intersections with the east limb would be exploring only a few tens of feet below the adit level. The east limb could be explored by driving a crosscut from the adit about 40 feet to the east and drilling from near the face. There is a chance that such a crosscut might hole the surface of the cliff face, but even if it did, it could still serve as a drill station and would be less costly than cutting a station on the very steep slope. However, a 70-foot hole drilled vertically from here would only explore a 40-foot section of this limb. A vertical down hole from the drift would explore the axis of the anticline and indicate any beds that might have formed traps for mercury deposition.

The present drift, as Magill states, has been driven on a down grade so that the crosscuts indicated on Section A-A' would be lower than the adit portal. This presents a slight tramming problem but is not critical. However, if drill holes indicate the advisability of a shaft, the west drift would present a water problem. In anticipation of finding ore at depth by drilling and subsequently sinking a shaft after raising to the surface from the crosscut, the applicant has requested a new crosscut be driven as shown on the two accompanying maps. The amount of crosscutting would be the same and the crosscut would be driven at a slight up grade resulting in easier and therefore less costly tramming as well as a natural drainage for drill water return. Section B-B' shows a possible drill pattern that would explore the fault zone and the west limb of the anticline from this crosscut.

We agree with Magill that the property deserves some exploration but do not recommend a shaft until more is known about the occurrence of the mercury. A small winze on the apparent ore-bearing bed from the present tunnel will only explore that bed and, since cinnabar may be seen in stratigraphically lower beds across the river, we do not favor this. Neither do we favor continuing the drift to the south as it would only explore the crest of the anticline and would have to be driven on a down grade to stay beneath the andesite.

We recommend a modification of the two-stage program outlined in the Field Team report. Stage I should provide for (1) diamond drilling 1 vertical hole from the existing drift to a depth of 100 feet to test the core of the anticline, (2) driving a new 100-foot adit from the approximate position and in the approximate direction shown on plate 1, and (3) drilling not more

than 6 diamond drill holes approximately as shown on plate 1, the total depth not to exceed 1,000 feet. All drill holes shall be drilled not less than BX in size and the location, bearing and inclination of each hole shall have prior approval of the Government.

If the results of the drilling warrant, we recommend Stage II as proposed in the Field Team report.

For crosscutting, timbering, preparation of drill stations and for Stage II, we recommend the same costs as those given in the Field Team report. For drilling BX size or larger we recommend a price of $8.00 per foot.

By Field Team, Region I

A. E. Weissenborn by [illegible]

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

Wing G. Agnew

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

Enclosures
cc: USBM(2)
USGS(SRO)
Albee

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

DMEA
RECEIVED FEB 20 1958
DATE | INITIAL | CODE
WSM

January 22, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: E. A. Magill, Mining Engineer, Bureau of Mines

Subject: Docket No. DMEA-4775 (Mercury), Washington Mining Corp., Royal Reward Mine, King County, Washington

A visit was made to the subject property on January 17, 1958, in order to obtain answers to the questions asked in Mr. Selfridge's letter of January 6, 1958. The property was inactive at the time of the visit, operations having been shut down in mid-November. Mr. L. V. Berkshire, vice-president of the corporation, conducted me about the property.

Since the last visit on June 27, 1957, the applicants have extended the adit 46 feet and have sunk a small underhand stope to supply ore for furnacing. They have erected a new furnace capable of taking about a one ton charge of ore. This new furnace has not been very successful, they report, because of the carbonaceous nature of the ore. The ore contains coal that starts burning with resultant poor mercury recovery. This characteristic was not noted in the small experimental furnace because they were charging it with select high-grade ore. Mr. Berkshire believes that a standard rotary furnace will give good recovery.

A 500-pound sample has been shipped by the Washington Mining Corporation to the U. S. Bureau of Mines, Albany, Oregon, for testing. Results of this work are not yet available.

To date, 12 flasks of mercury have been produced from the property according to Mr. Berkshire.

The answers to the questions in Mr. Selfridge's letter are as follows:

1. Location of adit face with respect to the anticlinal structure.

The adit face (adit is 96 feet in length) appears to be directly on the crest of the anticline. The adit is not level; it has an incline of approximately minus 10 degrees. The anticline plunges approximately 10° S. and the applicants have tried to stay beneath the andesite. They believe that the mercury mineralization lies beneath the andesite.

2. Has extended drift followed the anticline?

It has.

3. Are faults normal or reverse, conflicting arrow designations?

The principal fault (which also appears to be directly connected with the mercury mineralization) is a reverse fault. The arrows on the applicants' figures (Dwg. No. 2B-14 and 2B-15) are reversed. The bony coal seam which is in the adit is the same seam that has been opened up in the winze. The fault they show (in Dwg. No. 2B-14 and 2B-15) between the andesite and the bony coal is of questionable existence. The formations are complexly faulted and folded; both normal and reverse faults can be seen.

4. Size of underhand stope. Has ore pocket been exhausted?

The underhand stope is about 6' x 6' and 7' deep. It was filled with water. Mr. Berkshire stated that there was ore still in the bottom of the stope.

5. Does structure suggest an overturned fold in vicinity of ore pocket?

No, but the mineralization here does appear to be connected with the fault.

6. Would winzing on the ore zone be more satisfactory than diamond drilling?

Winzing on the ore would certainly have its points. As we all know, it is never advisable (from a limited viewpoint) to get very far away from the ore in a mercury deposit. However, in this case, mercury does occur in the beds (as seen in the cliff face and in the river) which lie stratigraphically lower. If we winze we are only testing the bed which we are sinking on. I think that the anticlinal structure should be tested a little more extensively than this. Diamond drilling as proposed in the examining team's report would test the

structure and give a basis for the rather large expenditure necessary to sink a shaft. AX size drilling was recommended by the examining team; after reviewing the situation BX or even NX size core would be much more satisfactory because of the variation in hardness of beds to be encountered and the complex folding and faulting. The larger size core would cost perhaps a dollar a foot more but it would be well worth it.

7. Is additional drifting warranted, or should short crosscuts be driven into walls at face to test limbs of anticline?

I believe that additional drifting is warranted. The applicants have followed the crest of the anticline but have not necessarily followed the ore. I believe that the cinnabar mineralization (realgar and orpiment are much more widespread) is connected with the fault as shown on the attached sketch. All production has come from along the fault. The last 40 feet of the adit is off the fault and is essentially barren of cinnabar mineralization although sparse amounts of realgar and orpiment occur. I believe further drifting along the fault is warranted.

I do not think crosscuts into the walls would prove too much as such crosscuts would take you into the overlying andesite. It is believed that mineralization extends downward (as shown in cliff face across river where stratigraphically lower beds are exposed); consequently, the beds exposed in the adit and the lower beds should be explored.

I still believe that the examining team's proposal is sound. Stage I should give sufficient information to determine whether or not sinking is warranted. As mentioned above, I believe that either BX or NX core should be substituted for the AX core in the drilling. Mr. Berkshire mentioned that they would like to modify their original proposal slightly in the method of going about raising out a portion of the shaft. Instead of driving a crosscut from the present adit as was proposed, and then raising and sinking, they believe it would be better to start a new crosscut at about the same elevation, in the cliff face, the portal of which would be about 50 feet or so northwest of the present adit. This appears to be a good proposal inasmuch as the present adit has a negative inclination of about 10 degrees. It would be difficult to retimber this adit to bring it up to grade. A new adit would also save in the length necessary to arrive at the proper location for the shaft. Consequently, it is recommended that if a contract is written, provision be made for the Field Team to have the discretion in the matter of where the shaft shall be located and the method used for access to it.

In conclusion I would like to say that I believe the deposit very definitely warrants further exploration. However, because little is known about the geologic associations in this deposit and because of the complex faulting, folding and varied rock types, any exploration program should be quite flexible so that changes may be made as necessary to follow the most logical method of exploration as the work progresses.

Mr. Berkshire stated that if a DMEA exploration program is entered into, Mr. Burt Avery from the Bonanza mine at Sutherlin, Oregon, would move to Washington and be in charge of the work.

E. A. Magill

Distribution:
DMEA (4)
USGS (2)
USBM (2)

EA Form 7
(12-56)

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Date	Surname	Code
1-3	Hopkins	400
1-3	Martin	400
1/3	[illegible]	130
	Absent	110
3	Rutkenbach	100
1/6	C	220
1		400

JAN 6 1958

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

Re: Docket No. DMEA 4775 - Mercury
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Weissenborn:

Reference is made to the Field Team examination report on the subject property and the Applicant's drawings numbered 2B-6 through 2B-25 representing additional sections across adit No. 1.

As these sections were made of the adit which has been extended 55 feet since the field examination, and comprises a portion of the work recommended by the examiners, we believe that another appraisal of the project should be made based on the geological data which the extended adit has revealed. To us here in Washington the most significant information shown by the sections is the change of structural conditions and the absence of cinnabar concentrations.

We suggest that you again review all of the Field Team's and Operator's additional data and send us your interpretation together with a new appraisal of your previous recommendation. In your review we would like you to cover fully the following:

1. Location of adit face with respect to the anticlinal structure.

2. Has extended drift followed the anticline?

3. Are faults normal or reverse, conflicting arrow designations?

4. Size of underhand stope. Has ore pocket been exhausted?

8623

5. Does structure suggest an overturned fold in vicinity of ore pocket?

6. Would winzing on the ore zone be more satisfactory than diamond drilling?

7. Is additional drifting warranted, or should short crosscuts be driven into walls at face to test limbs of anticline?

Upon receipt of the above information we will continue to process the application.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

P. F. Yopes

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

JHOPKINS/dlm 1-3-58
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. I
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

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DMEA
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DATE	INITIALS	CODE
12/23	C	220
12/23	WSM	400

So. 157 Howard Street
Spokane 4, Washington

December 18, 1957

Mr. John A. Roller, President
Washington Mining Corporation
38 Idaho Street
Tacoma 9, Washington

Re: Docket No. DMEA-4775 (Mercury)
Royal Reward Mine
King County, Washington

Dear Mr. Roller:

This is to advise you that your letter of December 2, 1957 requesting that the NW¼SW¼ of Section 9, Township 21 North, Range 7 East, W.M. be added in the land included in your application for a DMEA contract has been forwarded to the DMEA in Washington. We have also forwarded a letter from the Northern Pacific Railway Company stating that this company is not willing to sign a consent to lien form.

Your application is under consideration by the Washington office of the DMEA and you should receive a decision one way or the other soon.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

cc: DMEA (2)
USBM (2)
Sample

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DMEA
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DATE	INITIALS	CODE
12/9	C	220
12/9	WSM	400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

December 6, 1957

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

Re: Docket No. DMEA-4775 (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Selfridge:

Enclosed are three copies of a letter dated December 2, 1957, from John A. Roller, President, Washington Mining Corporation, in which he requests that the NW¼SW¼ of Section 9, Township 21 North, Range 7 East, W. M. be included in their DMEA application. Also enclosed are two reproduced copies of the company's permit with the Northern Pacific Railway Company. Mr. Roller brought them with him when he visited the office today.

I believe this completes all the information requested in your letter of September 25, 1957.

Sincerely yours,

for D R Mechanen
A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
Sample

12-9-57
X-tra copy sent
to BM & GS

WASHINGTON MINING CORPORATION

38 IDAHO STREET
TACOMA 9, WASHINGTON

Mr
Ok
12/5
ANSWERED

Please refer reply to John A. Re...

December 2, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 9 1957

DATE	INITIALS	CODE

Mr. A.E. Weissenborn
Department of the Interior
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. (DMEA-4775) Mercu...

Dear Mr. Weissenborn:

We wish to acknowledge the receipt of your letter dated November 29, 1957 requesting four copies of our exploration permit (T & M 3785) with the Northern Pacific Railway, and a request to include a portion of the land covered under this permit in our DMEA application.

We hereby request that you include the NW 1/4 of the SW 1/4 of Section 9, Township 21 North, Range 7 East, W.M. in our DMEA application. We have notified the Northern Pacific Railway of this discussion.

We are having our exploration permit with the Northern Pacific Railway duplicated and I will bring these copies to your office on Thursday, December 5, 1957. I hope we will have an opportunity at that time of further discussing our prospect with you.

Very truly yours,

John A. Reiler, President

RECEIVED
DEC 5 1957

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 9 1957

DATE	INITIALS	CODE

NORTHERN PACIFIC RAILWAY COMPANY

Washington Division

T&M Permit No. 3785

CONTRACT, made this 9th day of May, 1957, between NORTHERN PACIFIC RAILWAY COMPANY, a Wisconsin corporation, grantor, and WASHINGTON MINING CORPORATION, a Washington corporation, grantee.

The grantor, in consideration of the sum of One Dollar ($1.00), the receipt of which is acknowledged, and in further consideration of the covenants herein contained to be performed by the grantee, does hereby license and permit the grantee, for a period of one (1) year from the date hereof, to prospect for, mine and remove only mercury, arsenic and antimony bearing ores in the following described lands in King County, Washington, towit:

The East half of the Northeast quarter (E1/2 NE1/4) and the East half of the West half of the Northeast quarter (E1/2W1/2NE1/4) of Section Seven (7), all of Section Nine (9), and the East half (E1/2) of Section Seventeen (17), in Township Twenty-one (21) North, Range Seven (7) East of the Willamette Meridian, owned in fee by the grantor, subject to the rights of the Pacific Telephone and Telegraph Company under an easement deed dated

November 16, 1922, for a pole line right of way across said Section Nine (9); and subject to the rights of the United States under T&M Permit No. 2785 for the Eagle Gorge Dam Project covering said Sections Nine (9) and Seventeen (17).

The rights hereby granted are subject to the right of the grantor, its successors, licensees and assigns, to the use of such part of the surface as may be necessary or convenient for the purpose of exploring for (by geological, geophysical or other methods) and drilling for, producing, mining, extracting, taking, storing and transporting all minerals of every nature whatsoever, including but not limited to uranium, coal, iron, natural gas and oil in, upon or under the above described land, but excluding mercury, arsenic and antimony bearing ores, together with the right to the use of such sub-surface strata as may be necessary or convenient for the purpose of underground storage or injection of oil, gas, or other hydrocarbons, water, or other substances therein, whether produced from the land or elsewhere, and also together with the right to the use, in common with the grantee, its successors or assigns, of such water as may be found in, upon or produced from said premises as may be necessary or convenient for its operations, excepting water from the wells and reservoirs of the grantee, its successors and assigns.

The grantor reserves the right during the term hereof to cut and remove, or to grant the right to others to cut and

remove, any and all timber from the said premises and to use the surface thereof in logging operations, including the right to construct and operate logging roads. Should the grantee cut or damage any timber or reproduction without the consent of the grantor, it shall pay to the grantor double the current value thereof as liquidated damages.

It is specifically understood and agreed that the exercise of the rights reserved in this agreement shall not unreasonably interfere with the exercise of grantee's rights under this agreement.

The grantee will forthwith (weather conditions permitting) commence exploration on the premises and will diligently and continuously prosecute such work during the term (unless temporarily interrupted by causes beyond the grantee's control), or until mercury, arsenic, and/or antimony bearing ores are earlier discovered in paying quantities, and will expend the sum of Two Thousand Five Hundred Dollars ($2,500) in such exploratory wor, during the term of this contract. Does that include extension

The grantee will furnish to the grantor at the office of its Manager, Mining Properties and Eastern Lands, at St. Paul, Minnesota, quarterly reports showing the progress and results of all explorations upon the premises as well as upon adjoining lands controlled by the grantee, together with copies of all geological, geophysical, geochemical, metallurgical and engineering progress reports and such supporting maps as may be prepared by or for the grantee.

Should the grantee discover mercury, arsenic, and/or antimony bearing ores in paying quantities within the term of this permit, it may, within thirty (30) days after such discovery, demand, and the grantor will execute and deliver to it a lease of the premises in the form and on the terms set forth in Exhibit "A" hereto attached and made a part hereof.

For all mercury recovered from ores mined from the premises during the term of this permit, the grantee will pay a royalty of twenty (20) per cent of the gross selling price of said mercury. For all arsenic and antimony recovered from ores mined from the premises during the term of this permit, the grantee will pay a royalty of fifteen (15) per cent of the gross selling price of said arsenic and antimony. Royalty payments shall be made to the Treasurer of the grantor at St. Paul, Minnesota, on or before the 15th day of each month, covering all operations of the preceding calendar month, and shall be accompanied by a report of all such operations.

The grantor shall have the right, by its agent or agents, to enter upon the premises, or upon the premises where the ore is being treated, at any time for the purpose of inspecting and checking the grantee's operations, not unnecessarily or unreasonably hindering or interrupting such operations, and shall have access at all times to all books and accounts of the grantee, or other persons carrying on operations on the premises,

or handling the ore therefrom, relating to the quantity or quality of the ore mined, or the value thereof.

Should the grantee fail to commence or diligently and continuously prosecute the work contemplated by this permit, or should it fail to carry out any other agreement by it to be performed, this permit shall become null and void, and the grantor may re-enter the premises and exclude therefrom the grantee and all persons claiming under it.

The grantee agrees to indemnify and save the grantor harmless from all claims of every nature whatsoever against the premises during the term hereof, including claims for labor performed and material furnished, and for accumulation of tailings or debris from the demised premises on lands of other owners, or from stream pollution, and will permit no lien or encumbrance to be levied or assessed against the demised premises, and any violation thereof will, at the option of the grantor, cause a forfeiture of this permit, provided the foregoing agreement to indemnify shall apply only to such claims, accumulations, liens and encumbrances as result from Lessee's operations. The grantee also agrees to indemnify and save the grantor harmless from all loss or damage to its property or the property of others, and from injuries to persons occasioned partly or wholly, directly or indirectly by the grantee's operations hereunder.

Should title to the premises fail, the grantor shall not be liable for more than the amount received hereunder, with interest at four (4) per cent per annum; should title to a portion of the premises fail, such liability is limited to the amount received from or on account of the portion as to which title fails.

The rights hereby granted are personal and are not assignable.

IN WITNESS WHEREOF, the parties have executed this instrument in duplicate.

WASHINGTON MINING CORPORATION,

Attest: N. S. Bacurlay, Jr.
Treas.

By John L. Wall
Pres.

Attest:

George R. Paine
Manager, Mining Properties
and Eastern Lands

NORTHERN PACIFIC RAILWAY COMPANY,

By R. W. Bagell
General Manager, Properties
and Industrial Development

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 9 1957

DATE	INITIALS	CODE

EXHIBIT "A"

NORTHERN PACIFIC RAILWAY COMPANY

Washington Division

T&M Contract No. 3785

CONTRACT, made this _____ day of _____, 1957, between the NORTHERN PACIFIC RAILWAY COMPANY, a Wisconsin corporation, lessor, and WASHINGTON MINING CORPORATION, a Washington corporation, lessee.

1. The lessor, in consideration of the sum of One Dollar ($1.00) to it paid by the lessee, the receipt of which is acknowledged, and in further consideration of the covenants herein contained to be performed by the lessee, hereby grants unto the lessee, for the term of five (5) years from the date of this contract, the exclusive right to explore for, mine and remove only mercury, arsenic and antimony bearing ores contained in the following described lands in King County, Washington, towit:

(Here to be inserted such portion of the lands described in that contract dated May 9, 1957, between the parties as may be found to contain commercial quantities of mercury, arsenic, and/or antimony bearing ores, described by legal subdivisions in compact form.)

The rights hereby granted are subject to the right of the lessor, its successors, licensees and assigns, to the use of such part of the surface as may be necessary or convenient for the purpose of exploring for (by geological, geophysical or other methods) and drilling for, producing, mining, extracting, taking, storing and transporting all minerals of every nature whatsoever, including but not limited to uranium, coal, iron, natural gas and oil in, upon or under the above described land, but excluding mercury, arsenic and antimony bearing ores, together with the right to the use of such sub-surface strata as may be necessary or convenient for the purpose of underground storage or injection of oil, gas, or other hydrocarbons, water, or other substances therein, whether produced from the land or elsewhere, and also together with the right to the use, in common with the lessee, its successors or assigns, of such water as may be found in, upon or produced from said premises as may be necessary or convenient for its operations, excepting water from the wells and reservoirs of the lessee, its successors and assigns.

The lessor reserves the right during the term hereof to cut and remove, or to grant the right to others to cut and remove, any and all timber from the said premises and to use the surface thereof in logging operations, including the right to

construct and operate logging roads. Should the lessee cut or damage any timber or reproduction without the consent of the lessor, it shall pay to the lessor double the current value thereof as liquidated damages.

2. It is specifically understood and agreed that the exercise of the rights reserved in this agreement shall not unreasonably interfere with the exercise of Grantee's rights under this agreement.

3. The lessee will forthwith enter upon the leased premises and mine and remove therefrom such mercury, arsenic and/or antimony bearing ores as can be profitably recovered and will diligently and continuously pursue such work during the term, subject to the terms and conditions of this contract.

4. The lessee will pay to the lessor as rental a royalty upon all mercury, arsenic and/or antimony produced from the ores from the premises, as follows:

<u>Mercury:</u>

Where the gross selling price shall be Two Hundred Dollars ($200.00) per flask or less, the royalty shall be ten (10) per cent of such selling price; where the gross selling price shall be greater than Two Hundred Dollars ($200.00) and not more than Three Hundred Dollars ($300.00) per flask, the royalty shall be increased by one (1) per cent for each

increase of Twenty-five Dollars ($25.00) per flask, or fraction thereof, of the gross selling price; where the gross selling price shall be greater than Three Hundred Dollars ($300.00) per flask, the royalty shall be increased by one (1) per cent for each increase of Fifteen Dollars ($15.00) per flask, or fraction thereof, of the gross selling price; but in no event shall the royalty exceed thirty (30) per cent of such gross selling price.

Arsenic and Antimony:

Where the net selling price of direct shipping ores of arsenic and/or antimony shall be Fifteen Dollars ($15.00) per ton, or less, the royalty shall be ten (10) per cent of such price; where the net selling price shall be in excess of Fifteen Dollars ($15.00) per ton, the royalty shall be increased by one (1) per cent for each increase of Two Dollars ($2.00) per ton, or fraction thereof, of the net selling price of said ores, but in no event shall the royalty exceed thirty (30) per cent of such selling price.

In the event that lessee shall treat the arsenic and/or antimony ores in a mill or other concentrating plant owned or controlled by it, the lessee shall pay a royalty of ten (10) per cent of the net selling price of all concentrates produced from said mill or other concentrating plant.

"Net selling price" shall mean that price received by the lessee from the mill or other purchaser of the arsenic and/or antimony ores or concentrates recovered from the demised premises less the cost of truck and rail transportation from the mine to the mill or other plant of the purchaser.

The royalty payments shall be made to the Treasurer of the lessor at St. Paul, Minnesota, on or before the 15th day of each month covering all operations of the preceding calendar month, and shall be accompanied by a report of all such operations and duplicate copies of statements relating to the sale of the ores produced from the premises.

The lessee will pay to the lessor in advance, as minimum rental, the sum of Two Thousand Dollars ($2,000.00) for the first year of the term and Five Thousand Dollars ($5,000.00) per annum thereafter, such payments to be made quarterly in advance and to be credited on account of royalties inuring to the lessor during the year for which such advance payment is made.

5. Commencing with those for the year of the date of this contract, the lessee will pay all taxes of every kind levied or imposed upon the premises, and upon any improvements placed by it upon the premises. The lessee will also pay all taxes levied or imposed upon the minerals produced, including all net proceeds taxes, and will refund and repay to the lessor

any taxes which the lessor may be required to pay to the State of Washington on account of royalties received, it being the intention that the lessor shall be relieved from the payment of any and all taxes upon the land, improvements and all other State and County taxes on account of any operation by the lessee hereunder. In the event that in the exercise of any of the rights reserved under this agreement, any interest in land shall be granted, said taxes shall be equitably prorated as between the Lessee and every other lessee or grantee. Upon the termination of this contract, in whole or in part, the lessee will pay such proportion of such taxes and assessments levied or assessed against the premises for the year of the termination as the number of months of the year the contract is in effect bears to twelve.

6. The lessee will furnish to the lessor quarterly, without cost, maps and plats based on actual survey showing its workings upon the premises and adjoining lands. Should the lessee fail to have such maps prepared, the lessor shall have the right to make the necessary surveys for such maps at the sole expense of the lessee, and the lessee agrees to make payment therefor within thirty (30) days of notice of amount so expended. The lessee will also furnish to the lessor quarterly copies of all geological, geophysical, geochemical, metallurgical and engineering progress maps and reports which may be prepared by or for the lessee.

7. The lessee will conduct all mining and other operations on the premises in such manner as is usual and customary in the skillful and proper operations of similar character to produce the largest possible recovery of the ore and so as not to cause or permit any unnecessary or unusual permanent injury to the mines or inconvenience or hindrance to subsequent operation of same, and will deposit all earth, rocks and other useless material in such places and in such manner as will not conflict with or embarrass future mining operations.

8. The lessee agrees that ores taken from the premises shall not be mixed before treatment with other ores mined from adjacent or other lands unless facilities are provided to adequately sample and weigh all ore taken from the property of the lessor. The lessee further agrees that it will determine by standard methods the valuable metal content of the ore before it is treated in any concentrating or reforting plant. The lessee will also retain properly labeled and placed on file a duplicate portion of each sample which shall be available to the lessor for check analyses.

9. The lessor shall have the right, by its agents or servants, to enter upon the premises, or upon the premises where the ore is being treated, at any time for the purpose of inspecting and checking the lessee's operations, not unnecessarily or unreasonably hindering or interrupting such

operations, and shall have access at all times to all books and accounts of the lessee, or other persons carrying on operations on the premises, or handling the ore therefrom, relating to the quantity or quality of the ore mined, or the value thereof.

10. The lessee agrees that all metals, ores or concentrates produced from the premises, as well as from all lands now or hereafter controlled by it, so far as such materials are destined for rail shipment, as well as all incoming freight destined for use in the mining and treating of said ores, shall be shipped over such railway or such railroad lines as the lessor may designate, provided the rates and service of such designated lines shall equal those of any competing line.

11. Without the written consent of the lessor, the lessee shall not assign this lease, or any interest therein, nor sublet, and no executor, administrator, receiver, master, sheriff, trustee in bankruptcy or other assignee by operation of law shall assign or sublet without such written consent, and the insolvency, bankruptcy or appointment of a receiver for the lessee shall, at the option of the lessor, immediately terminate this lease.

12. At the termination of this contract, the lessee will quietly and peacably surrender possession to the lessor.

13. At the expiration of the term, or upon the earlier termination of this contract, the lessee shall have ninety (90)

days in which to remove all engines, tools, machinery and structures placed upon the premises by the lessee, but shall not remove or impair any supports placed in the mines or any timbers or framework necessary to the use and maintenance of the shafts or other approaches to the mines, or any tramways within the mines.

14. The lessee may at any time surrender this lease upon six (6) months' written notice to the lessor served by mail addressed to it at St. Paul, Minnesota.

15. If the advance minimum payment, or the royalty, or any part thereof, or the taxes, as herein provided, shall remain unpaid after the time when same should be paid, or if the lessee shall fail to keep or perform any other covenant herein expressed to be performed on its part, and such default shall continue for ten (10) days, the lessor, at its option, after thirty (30) days' written notice served by mail addressed to the lessee at 38 Idaho Street, Tacoma 9, Washington, may terminate this contract, re-enter the premises and exclude therefrom the lessee and all persons claiming under it unless the lessee shall have remedied the default complained of within said thirty (30) day period; and the lessor on like notice may terminate the contract if mining operations upon the premises shall at any time cease for a period of six (6) consecutive months for any reason other than strikes or accidents, or low metal prices rendering it impossible to operate without

loss. In the event of termination of this contract under the provisions of this paragraph, the lessor shall retain as a forfeiture any and all advance minimum rental payments made by the lessee in accordance with Paragraph 4 of this contract.

16. The lessee agrees to indemnify and save the lessor harmless from all claims of every nature whatsoever against the premises during the term hereof, including claims for labor performed and material furnished, and for accumulation of tailings or debris from the demised premises on lands of other owners, or from stream pollution, and will permit no lien or encumbrances to be levied or assessed against the demised premises, and any violation thereof will, at the option of the lessor, cause a forfeiture of this contract, provided the foregoing agreement to indemnify shall apply only to such claims, accumulations, liens and encumbrances as a result from lessee's operations. The lessee also agrees to indemnify and save the lessor harmless from all loss or damage to its property or the property of others, and from injuries to persons occasioned partly or wholly, directly or indirectly by the lessee's operations hereunder.

17. When this contract shall for any reason terminate, the lessee will cause to be entered a certificate of that fact upon the proper books of record, provided this contract shall have been recorded.

18. The lessor shall at all times have a lien upon all ore mined and upon all improvements of the lessee as security for any unpaid balances due under this contract, such balances being treated as purchase money, which lien may be enforced in like manner as liens conferred by chattel mortgage under the laws of the State of Washington, or in any other proper and lawful manner.

19. Should title to the premises fail, the lessor shall not be liable for more than the amount received hereunder, with interest at four (4) per cent per annum; should title to a portion of the premises fail, such liability shall be limited to the amount received from or on account of the portions as to which title fails.

20. Each obligation hereof shall be binding upon and every benefit hereof shall inure to the respective heirs and assigns of the parties.

IN WITNESS WHEREOF, the parties have executed this instrument in duplicate.

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 2 1957

DATE	INITIALS	CODE
12/2	C	220
12/2	WSOY	400

So. 157 Howard Street
Spokane 4, Washington

November 29, 1957

Mr. John A. Roller, President
Washington Mining Corporation
38 Idaho Street
Tacoma 9, Washington

Re: Docket No. DMEA-4775 (Mercury)
Royalt Reward Mine
King County, Washington

Dear Mr. Roller:

This is in further reference to our letter of October 1, 1957, regarding the addition of land to be included in the contract, a statement from the Northern Pacific Railway Company, and bids for drilling.

We have received the necessary bids which you sent us October 21, 1957, and the statement from the Northern Pacific Railway Company in a letter dated November 18, 1957, by Mr. George R. Powe.

We still lack a request from you that the N½SW¼ sec. 9 be added to the land to be included in the project. Your request should be accompanied by four photostat or certified true copies of your exploration permit (T&M 3785) or one reproducible signed copy.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

cc: DMEA(2)
DMM(2)
Albee

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 DEC 2 1957

DATE	INITIAL	CODE
12/2	C	220
12/2	WSM	400

November 29, 1957

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

Re: Docket No. DMEA-4775 (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Selfridge:

Enclosed are two copies of a letter dated November 18, 1957, from Mr. George R. Powe, Manager, Mining Properties and Eastern Lands, Northern Pacific Railway Company, stating why his company will not sign a Subordination Agreement covering the NW$\frac{1}{4}$SW$\frac{1}{4}$ sec. 9. This is the land the Washington Mining Corporation was asked to include in the area to be explored as requested in your letter of September 25, 1957. The drilling bids requested in your letter were forwarded on October 29, 1957.

The applicant has not yet formally requested that the additional land be added. We are writing him again repeating our request of October 1, 1957, and will ask for a copy of Exploration Permit T&M 3785.

By Field Team, Region I

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

Stephen W. Zolotor
for Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures
cc: USBM(2) wo/encl.
Albee do.

NORTHERN PACIFIC RAILWAY COMPANY

PROPERTIES AND INDUSTRIAL DEVELOPMENT DEPARTMENT

ST. PAUL 1, MINN.

November 18, 1957

T&M 3785

GEORGE R. POWE,
MANAGER, MINERAL PROPERTIES AND EASTERN LANDS

DONALD W. LINDGREN,
CHIEF MINING GEOLOGIST

J. W. BARNETT,
SUPERVISOR, GRADING AND CULTIVATION

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

Re: Docket No. DMEA-4775 (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Weissenborn:

We have delayed replying to your letter of October 15, 1957, pending receipt of a report from the Washington Mining Corporation which had been promised to us prior to receipt of your letter. That report came in last Friday.

I have submitted the Consent to Lien and Subordination Agreement form to our attorneys for an opinion. Our attorneys object to clause 2 of this agreement which says that the agreement grants to the Government a lien upon all of our right, title, and interest in the land as well as upon any production of minerals therefrom to secure the payment to the Government of a percentage royalty on production. We are prohibited by the terms of one of our mortgages from executing any agreement which would constitute a lien upon our land; and for that reason, we must decline to sign the Subordination Agreement.

Mr. Roller of the Washington Mining Corporation sent us a copy of his application for the DMEA loan, and we note that it did not include the land owned by the Northern Pacific Railway Company held under T&M 3785 by the Washington Mining Corp. We understood that Mr. Roller was considering adding our land to the premises covered by the application. We must point out to you that T&M 3785 is an exploration permit and expires on May 9, 1958. It contains an option for lease upon the discovery of a commercial mineral deposit. Normally, we extend exploration permits of this type for additional periods of one year provided the permittee has performed satisfactorily all of the conditions of the permit. Ordinarily, we do not extend such permits for a period of more than one year.

OFFICIAL FILE COPY
DMEA
RECEIVED

DATE	INITIALS	

DMEA

A. E. Weissenborn Nov. 18, 1957

Mr. Donald W. Lindgren and I expect to attend the meeting of the Northwest Mining Association in Spokane on December 6 and 7, 1957. If time permits, we would be glad to talk to you about the problem of DMEA loans involving lands owned by the Northern Pacific Railway Company.

Yours very truly,

Manager, Mining Properties
and Eastern Lands

GRP:AC

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 1 1957

DATE	INITIALS	CODE
11/1	C	220
11/4	WSM	400

So. 157 Howard Street
Spokane 4, Washington

October 29, 1957

Mr. John A. Roller, President
Washington Mining Corporation
38 Idaho Street
Tacoma 9, Washington

Re: Docket No. DMEA-4775 (Mercury)
Royal Reward Mine
King County, Washington

Dear Mr. Roller:

Thank you for your letter of October 21, 1957 with which you advised us that you were forwarding two copies of quotations from Western Drilling and Equipment Company, Lynch Brothers, and Boyles Brothers Drilling Company; and two copies of drawings number 2B-6 through 2B-25.

This material has been received and forwarded to Washington.

We received on October 10, 1957, a letter from Mr. George R. Powe, Manager, Mining Properties and Eastern Lands, Northern Pacific Railway Company, requesting a copy of the Consent to Lien and Subordination Agreement form. We sent it to him October 15, 1957 but to date have heard nothing further. We suggest that you ascertain from Mr. Powe whether the Northern Pacific Railway Company will sign the Consent to Lien form and, if not, you should submit a letter from the company to that effect as mentioned in our letter of October 1, 1957.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

cc: DMEA (2)
USBM (2)
Sample

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 1 1957

DATE	INITIALS	CODE
11/1	C	220
11/4	WSM	400

October 29, 1957

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

Re: Docket No. DMEA-4775 (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Selfridge:

Enclosed are one copy each of drilling bids submitted by the subject applicant as requested in your letter of September 25, 1957. Boyles Bros. has only submitted a reply to the applicant's request for a bid, and if a bid is submitted by them, we will forward it to you.

Also enclosed are copies of the applicant's drawings numbered 2B-6 through 2B-25 representing additional sections across Adit No. 1, to be included with his application.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
Sample

WASHINGTON MINING CORPORATION

38 IDAHO STREET
TACOMA 9, WASHINGTON

Please refer reply to:

[illegible] 1, 1957

[illegible] A.E. Weissenborn
Executive Officer, DMEA
[illegible] Department of the [illegible]
[illegible] 157 Howard Street
[illegible], Washington

Re: [illegible] No. DMEA 4775 (Mercury)

[illegible] Weissenborn

[illegible]

[illegible] yours,

[illegible] Miller, President

[illegible]rr

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 1 1957

DATE	INITIALS	CODE

RECEIVED
OCT 24 1957
[illegible] WASH

Western Drilling & Equipment Co.
Telephone FUlton 2400
1545 BAY ST.
TACOMA 2, WASHINGTON

CONTRACT DRILLERS

WATER WELLS
EXPLORATION DRILLING
FOUNDATION HOLES
CORE DRILLING

October 15, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 1 1957

DATE	INITIALS	CODE

Washington Mining Corporation
708 N. Carr
Tacoma, Washington

Gentlemen:

In response to your request for ~~bids on that~~ certain drilling to be done near Palmer, Washington, we submit the following:

Mobilization and demobilization		$2,500.00
Core Drilling AX core	1,000 ln ft.	$13.50 per ft.
Grouting and reaming		12.00 per hr.

Yours very truly,

Western Drilling & Equipment Co

By M W Gunnarson
Partner

RECEIVED
OCT 24 1957
U.S.G.S.

R. C. LYNCH

CHAS. D. SELLERS

LYNCH BROS.

DIAMOND DRILL CONTRACTORS

3425 STONE WAY • TELEPHONE MELROSE 5052

SEATTLE 3, WASHINGTON

October 2, 1957

Washington Mining Corporation
708 North Carr
Tacoma 3, Washington

Attn: Mr. H. S. Barrslag

Dear Sir:

Re your request we submit the following quotation for diamond drilling and recovering AX size core on your properties near Palmer, Washington.

It is understood there will be about 1,000 feet of drilling from underground stations, the holes to be an average of 150 feet in depth.

We will supply all labor, equipment, material and supplies except those listed below and do the drilling for the following prices:

Item 1 - Mobolizing equipment on & off job	-	$ 200.00	
Item 2 - Drilling & recovering AX size core - 1000 ft.	@	5.85	lin.ft.
Item 3 - Cementing & reaming	@	12.00	per hr.
Item 4 - Drilling & recovering BX size core	@	6.20	lin.ft.

Washington Mining Corporation will make available to the drilling contractor the air lines they have in mine and will cut drilling stations to allow at least a 10 foot pull of the drill rods.

The above price does not include core boxes. If desired, we will supply core boxes holding 25 feet of AX core for $7.00 each.

We have listed a price for drilling BX size hole for your information in case you might desire to drill this size for better core recovery.

Very truly yours,

LYNCH BROS.

R C Lynch

RCL:d

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 1 1957
DATE | INITIALS | CODE

RECEIVED
OCT 24 1957
U. S. G. S.
SPOKANE, WASH

Diamond-Core Drilling
Mining
Quarries
Shaft Sinking
Tunnel Driving

Boyles Bros. DRILLING COMPANY

CONTRACTORS - ENGINEERS - GEOLOGISTS

GENERAL OFFICES
1321 SOUTH MAIN STREET PHONE HU 4-4401
SALT LAKE CITY 15, UTAH

East 11403 12th, Avenue
Spokane 63, Washington

FIELD OFFICE CORRESPONDENCE

REPLY TO: Spokane

October 3, 1957

Mr. John A. Roller
Washington Mining Corporation
38 Idaho Street
Tacoma 9, Washington

Dear Mr. Roller:

We were unable to get enough pertinent information on your proposed drilling program, in time to send you a intelligent quotation.

Sincerely yours,

O.C. Bouquot

O.C.Bouquot
District Manager

RECEIVED
OCT 24 1957
U. S. G. S.
SPOKANE, WASH.

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 1 1957

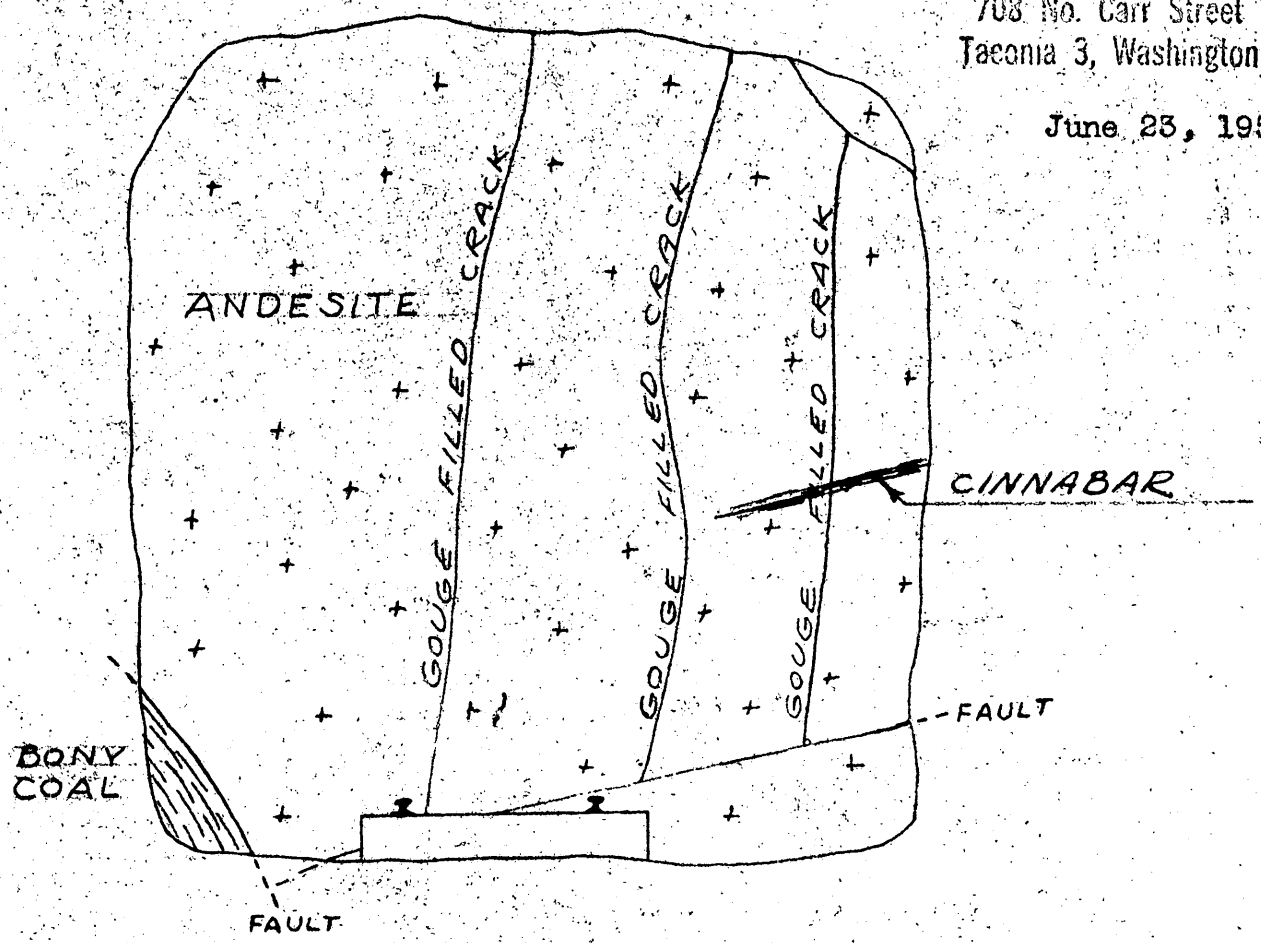
DATE	INITIALS	CODE

ADIT NO. 1 X-SECTION

DRAWING NO. 28-6

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington

June 23, 1957



STATION 0+10

SCALE ½" = 1'-0"

NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite and very little realgar. It is badly broken with some large gouge filled cracks.

Bony coal is fractured and cemented with calcite.

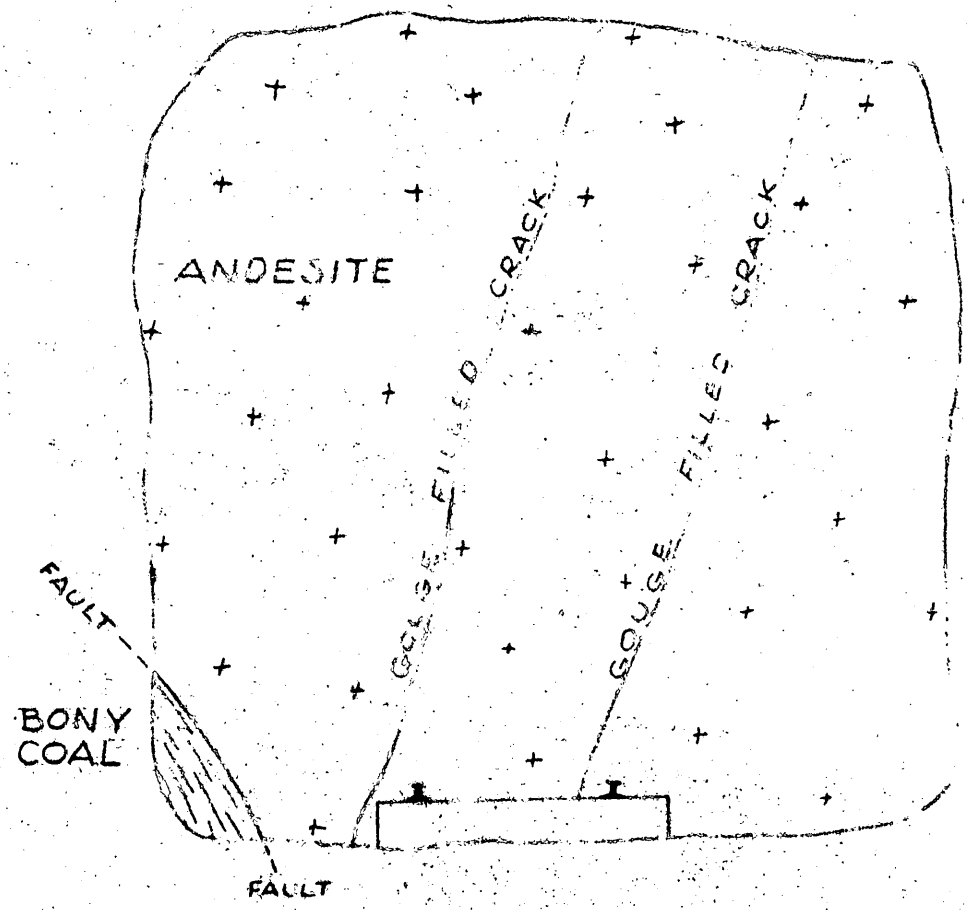
A ½" × 2' fracture filled with cinnabar was encountered in right side face.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington

June 23, 1957



STATION 0+15

SCALE ½" = 1'-0"

NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite and very little realgar. It is badly broken with some large gouge filled cracks.

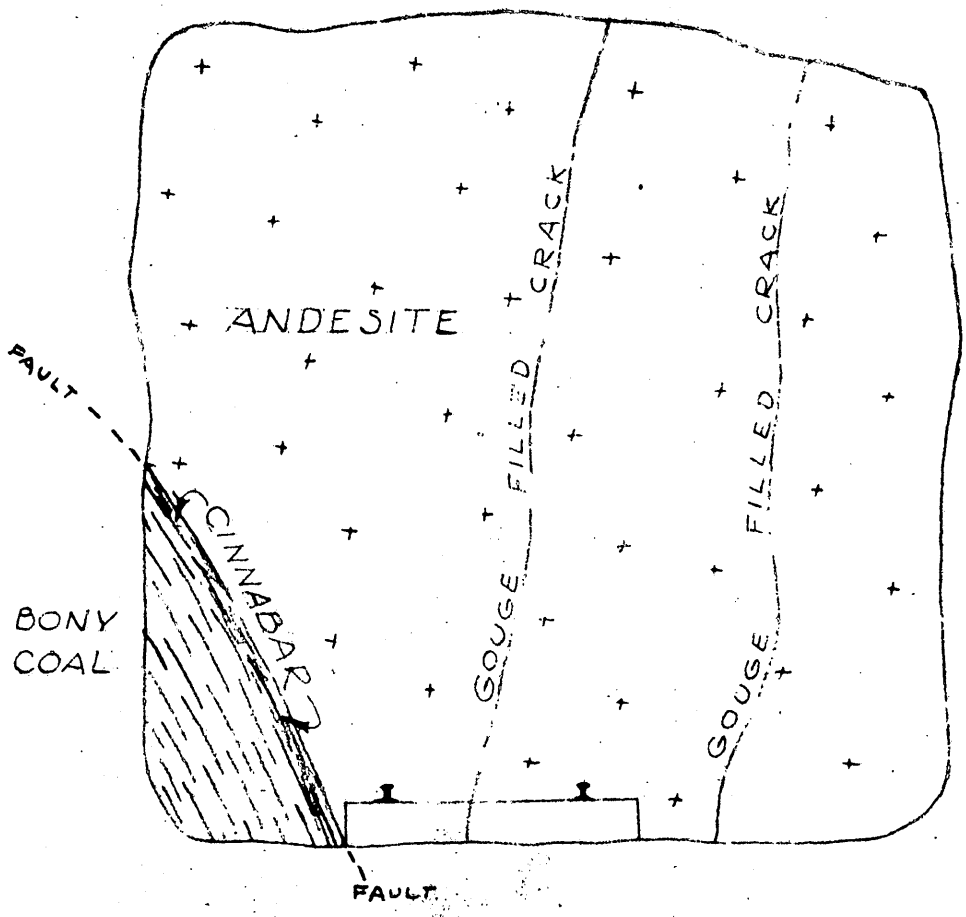
Bony coal is fractured and cemented with calcite

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-8

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington

June 23, 1957



STATION 0+20

SCALE ½" = 1'-0"

NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite and very little realgar. Some large gouge filled cracks are also present.

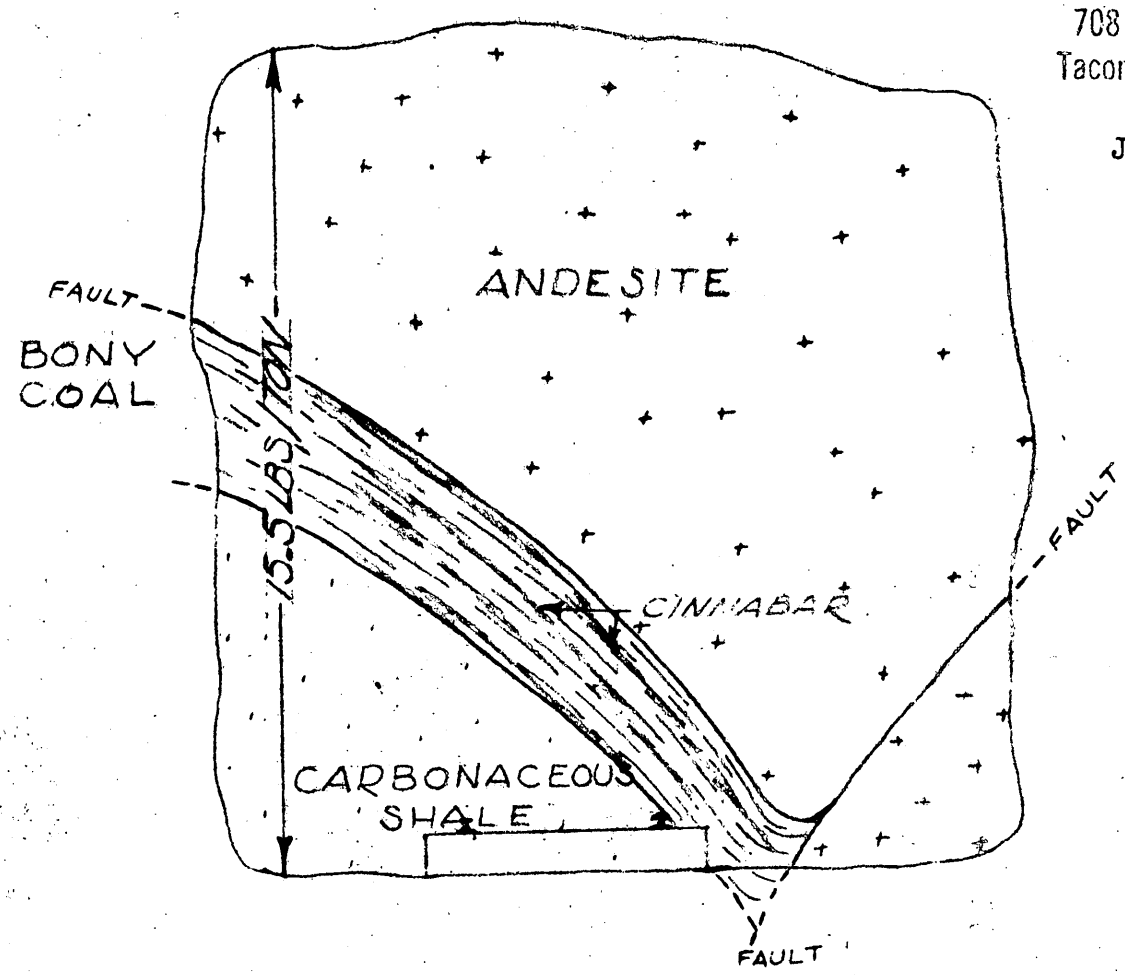
Bony coal is fractured and cemented with calcite also contains a thin seam of cinnabar.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-9

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington

June 23, 1957



STATION 0+25

SCALE ½" = 1'-0"

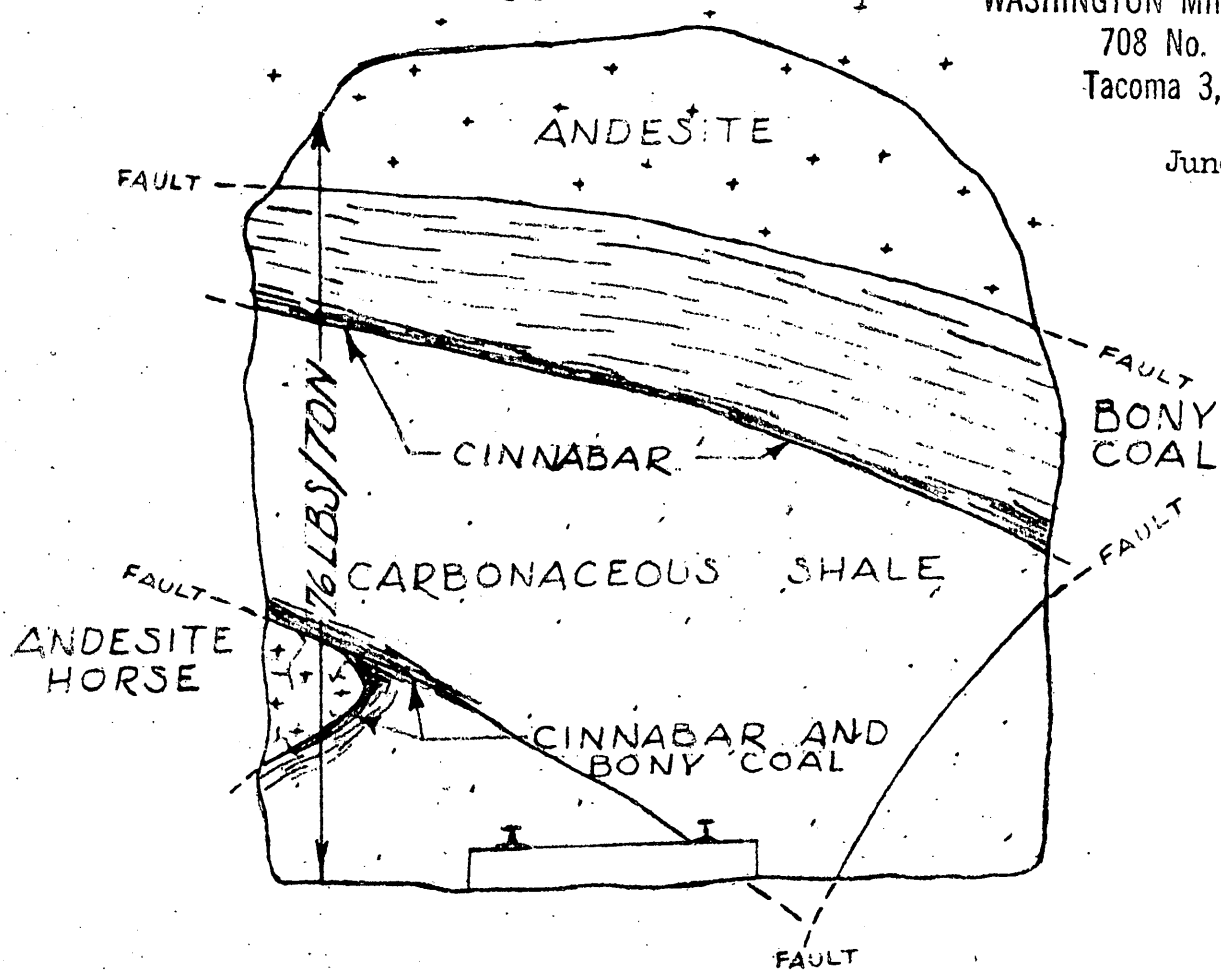
NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite, gouge and some realgar.
Carbonaceous shale is fractured and cemented with calcite also some cinnabar in fine fractures.
Bony coal is badly fractured and cemented with calcite. Contains high grade cinnabar disseminated and in pockets.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-10

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington

June 23, 1957



STATION 0+30

SCALE ½" = 1'-0"

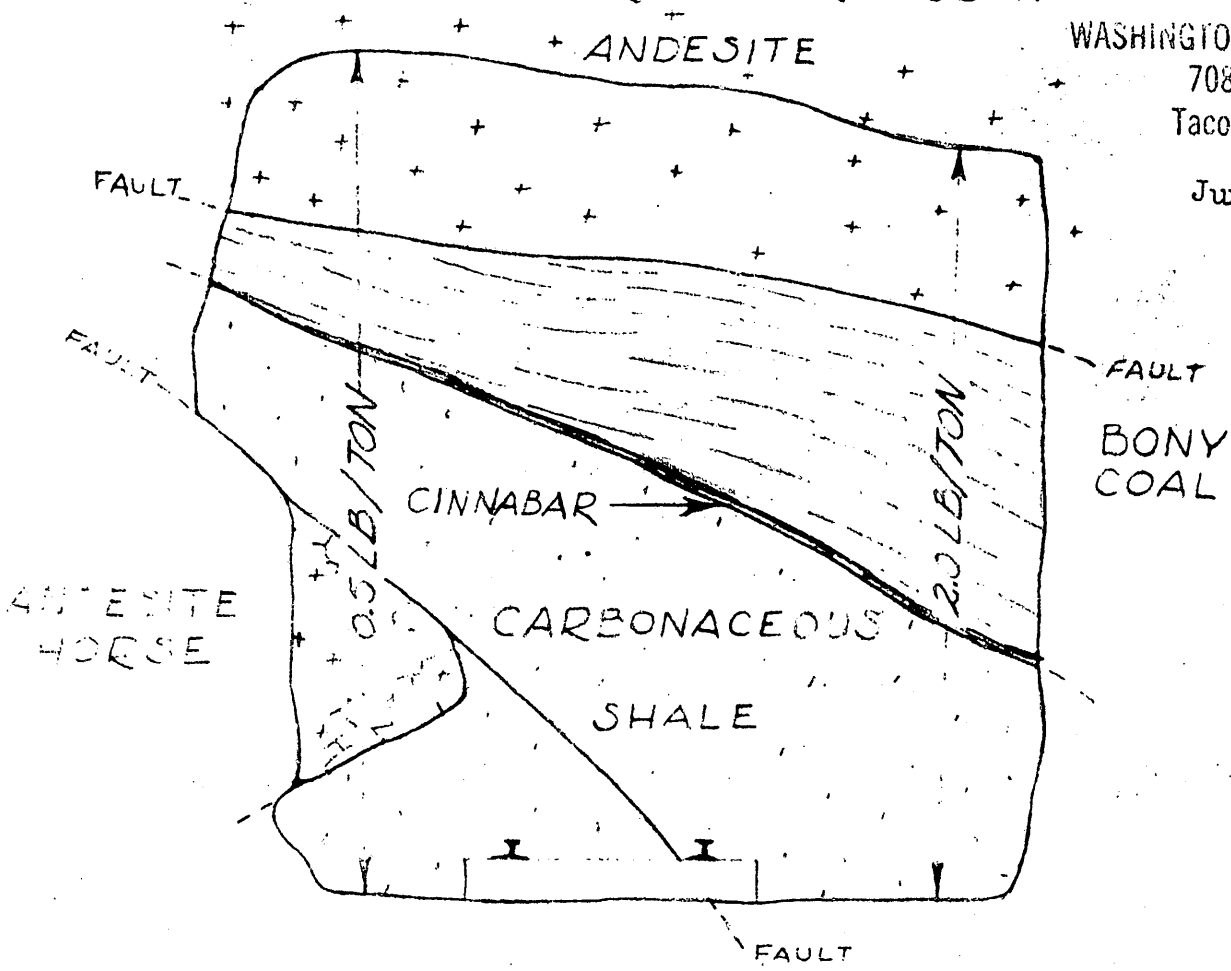
NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite. The andesite horse in shale has been fractured and cemented with arsenic and calcite. Horse has 2" to 6" thickness of fine compact x-line cinnabar coating the surface. Carbonaceous shale is fractured and cemented with calcite. Bony coal is badly fractured and cemented with calcite. Disseminated cinnabar in contact with shale.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-11

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington

June 23, 1957



STATION 0+35

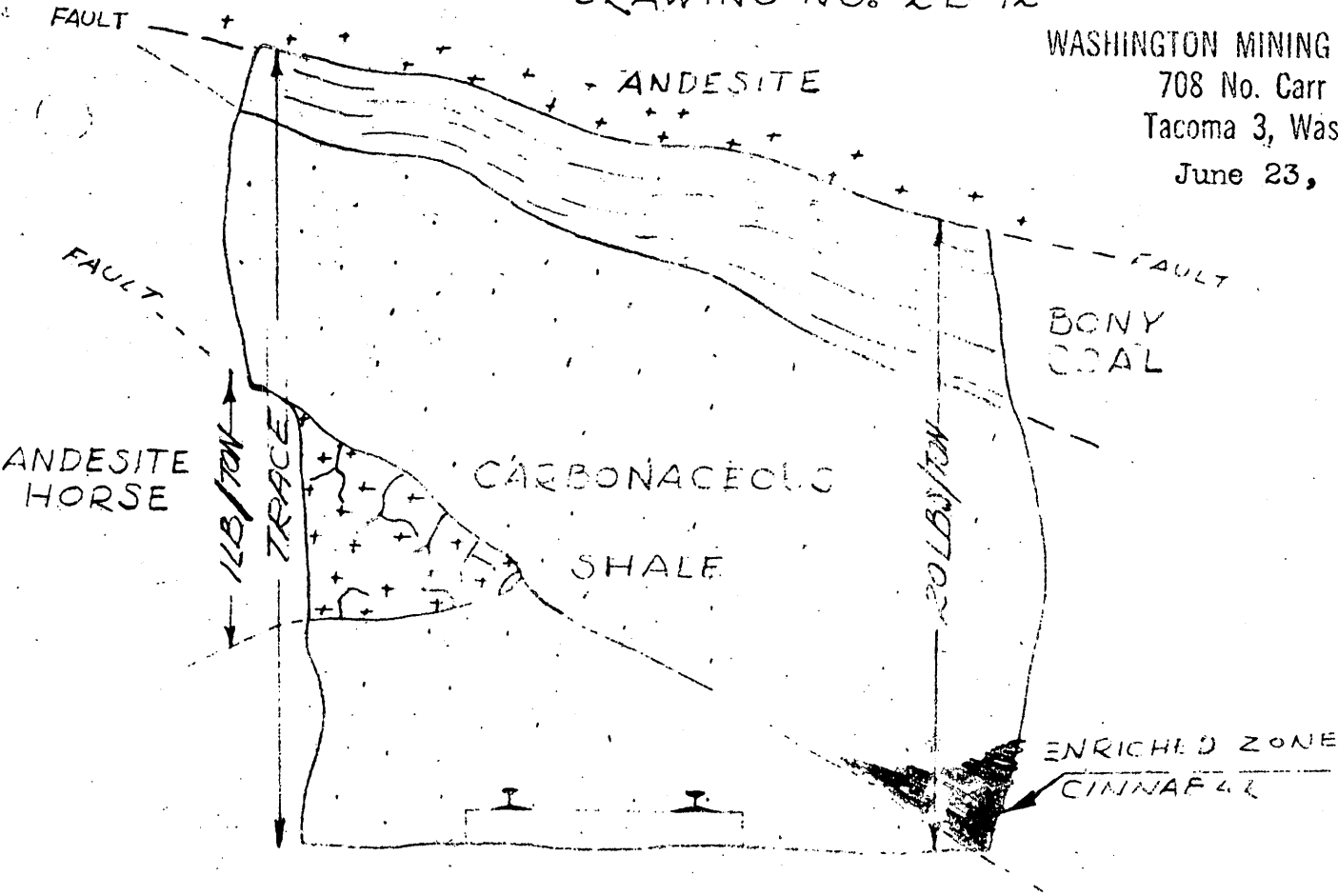
SCALE ½" = 1'-0"

NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite. The andesite horse in the shale has been fractured and cemented with arsenic and calcite.
Carbonaceous shale is fractured and cemented with calcite. Fault plane is mineralized with fine x-line cinnabar.
Bony coal is badly fractured and cemented with calcite and some finely disseminated cinnabar.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-12

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington
June 23, 1957



STATION 0+40

SCALE ½" = 1'-0"

NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite. The andesite horse in the shale has been re-fractured and cementing agent is fine x-line cinnabar.

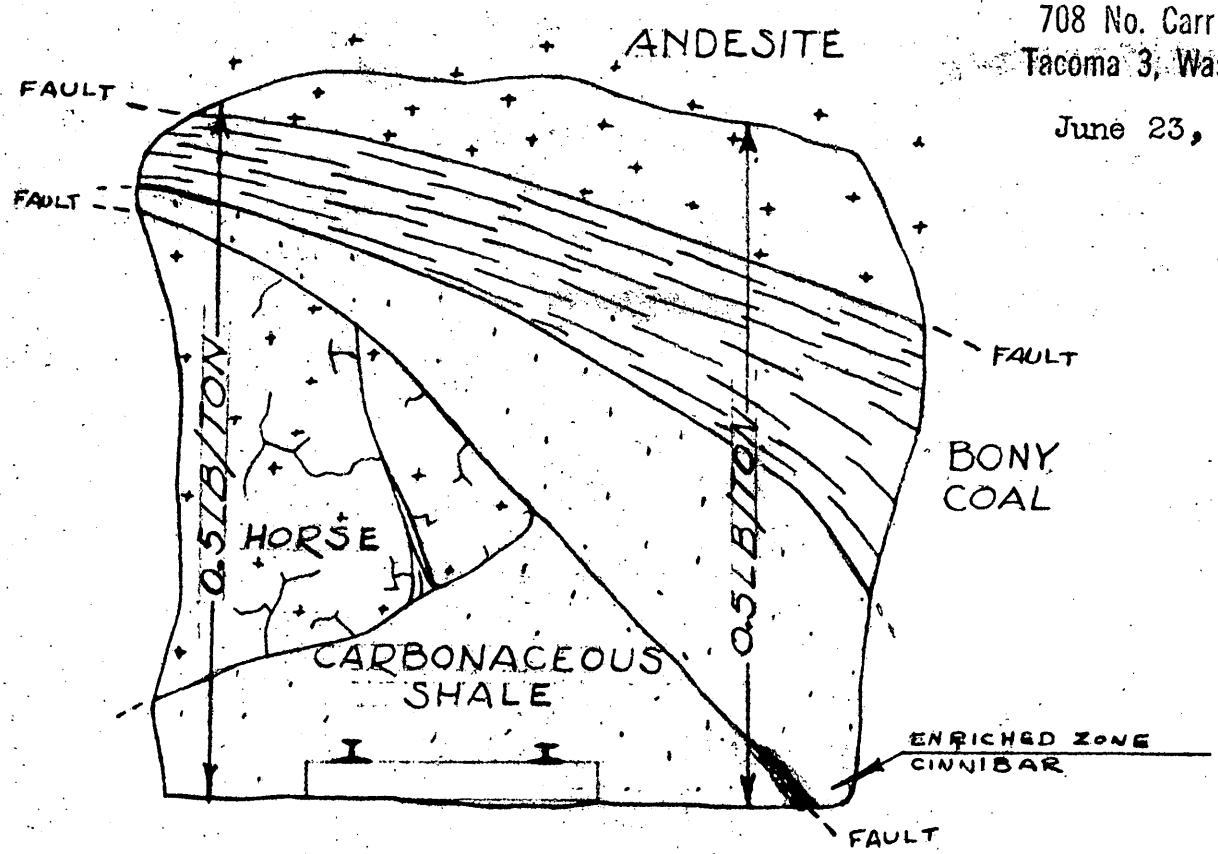
Carbonaceous shale is fractured and cemented with calcite. Fault planes are mineralized with fine x-line cinnabar. Bony coal is badly fractured and cemented with calcite.

ADIT NO. 1 X-SECTION

DRAWING NO. 2B-13

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington

June 23, 1957



STATION 0+45

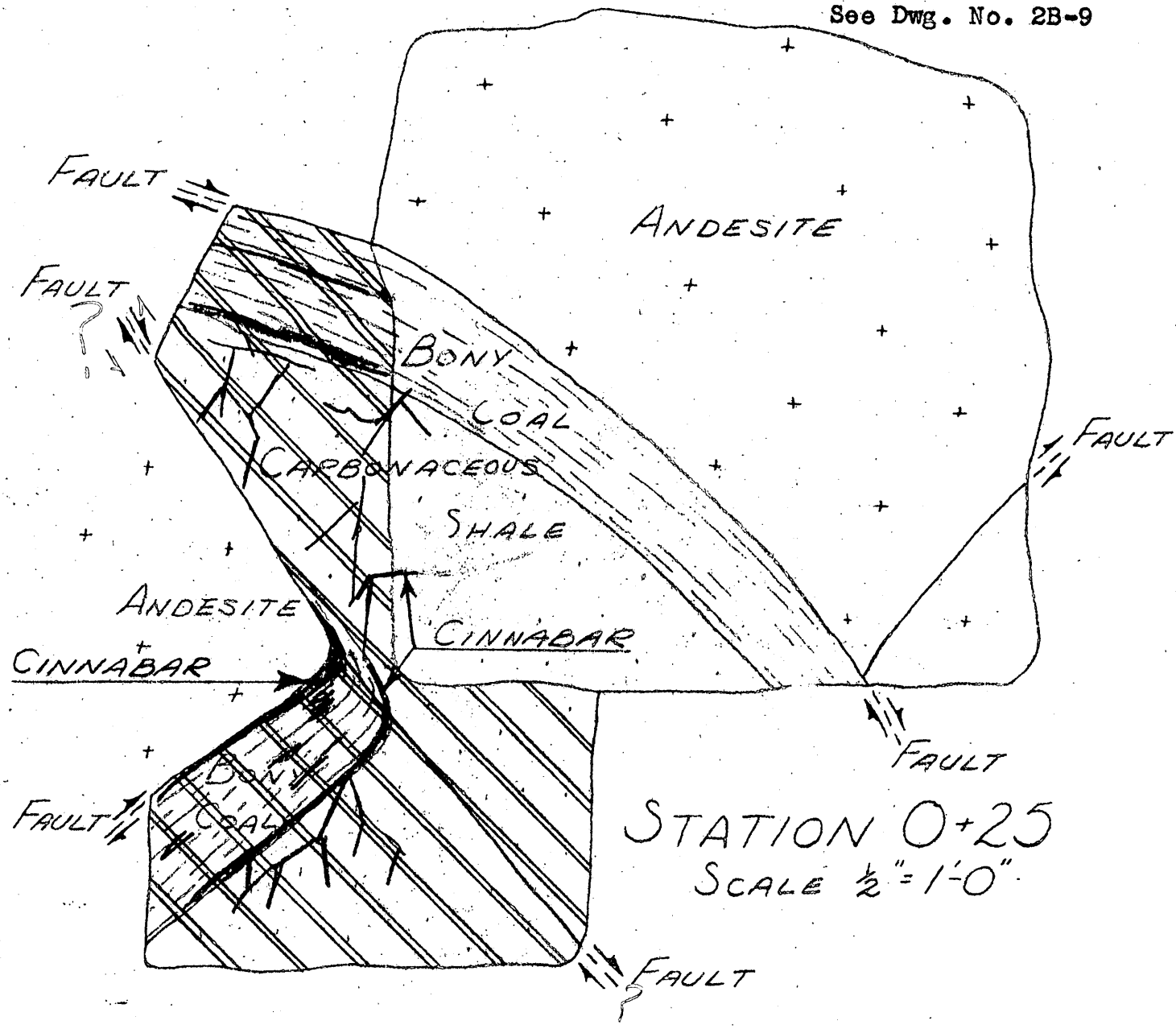
SCALE 1/2" = 1'-0"

NOTES: Andesite is hydrothermally altered, fractured and cemented with calcite. The andesite horse in the shale has been fractured and cemented with arsenic and calcite. Carbonaceous shale is fractured and cemented with calcite. Fault plane is mineralized with fine x-line cinnabar. Bony coal is badly fractured and cemented with calcite.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington
Dwg. No. 2B-14 9/1/57

See Dwg. No. 2B-9

ADIT NO. 1



ADIT

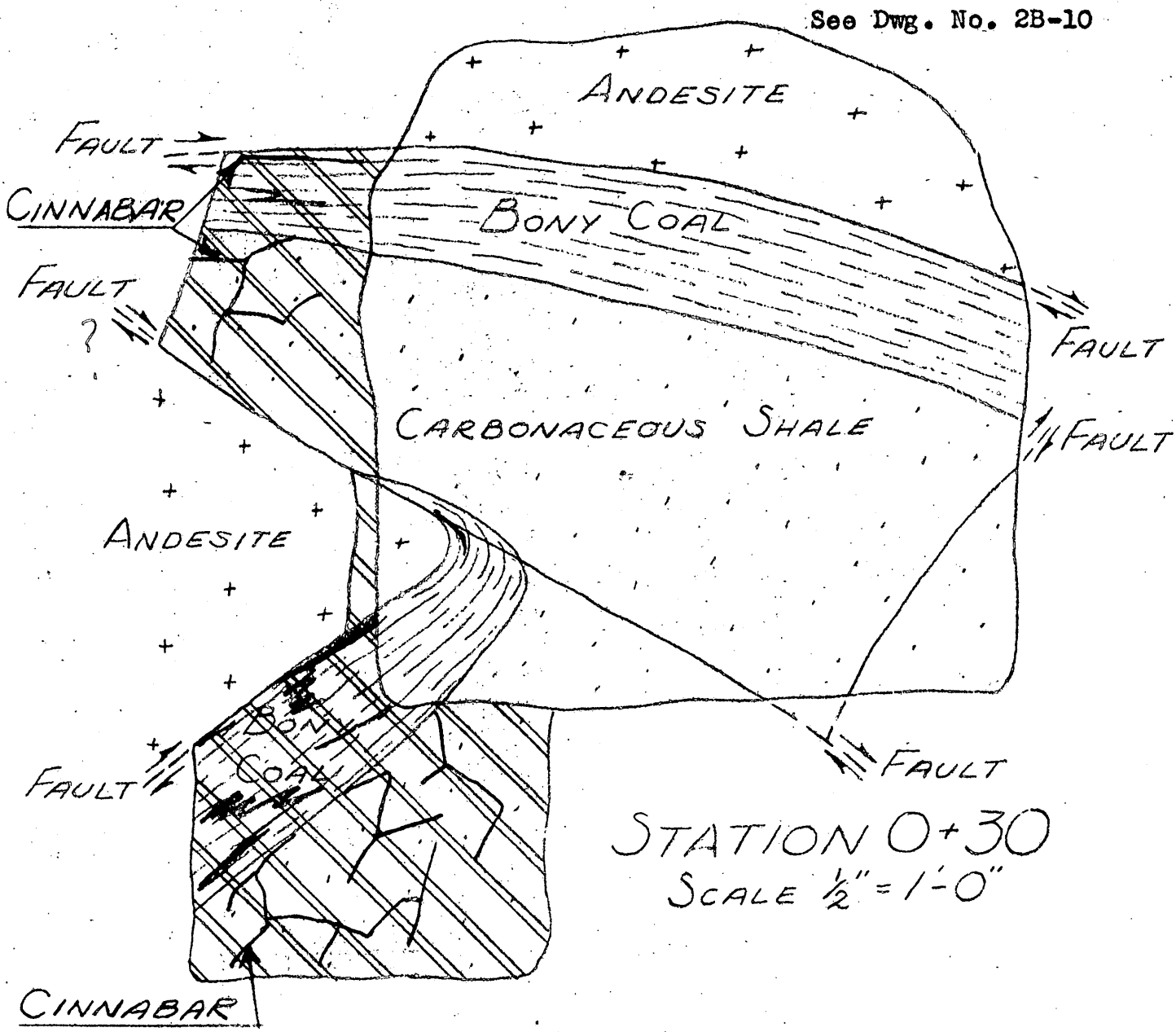
AREA MINED

Ore stockpiled from STA. 0+25 to 0+35 averaged 30.1 lbs. mercury per ton.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington
Dwg. No. 2B-15 9/1/57

See Dwg. No. 2B-10

ADIT NO. 1



STATION 0+30
SCALE ½" = 1'-0"

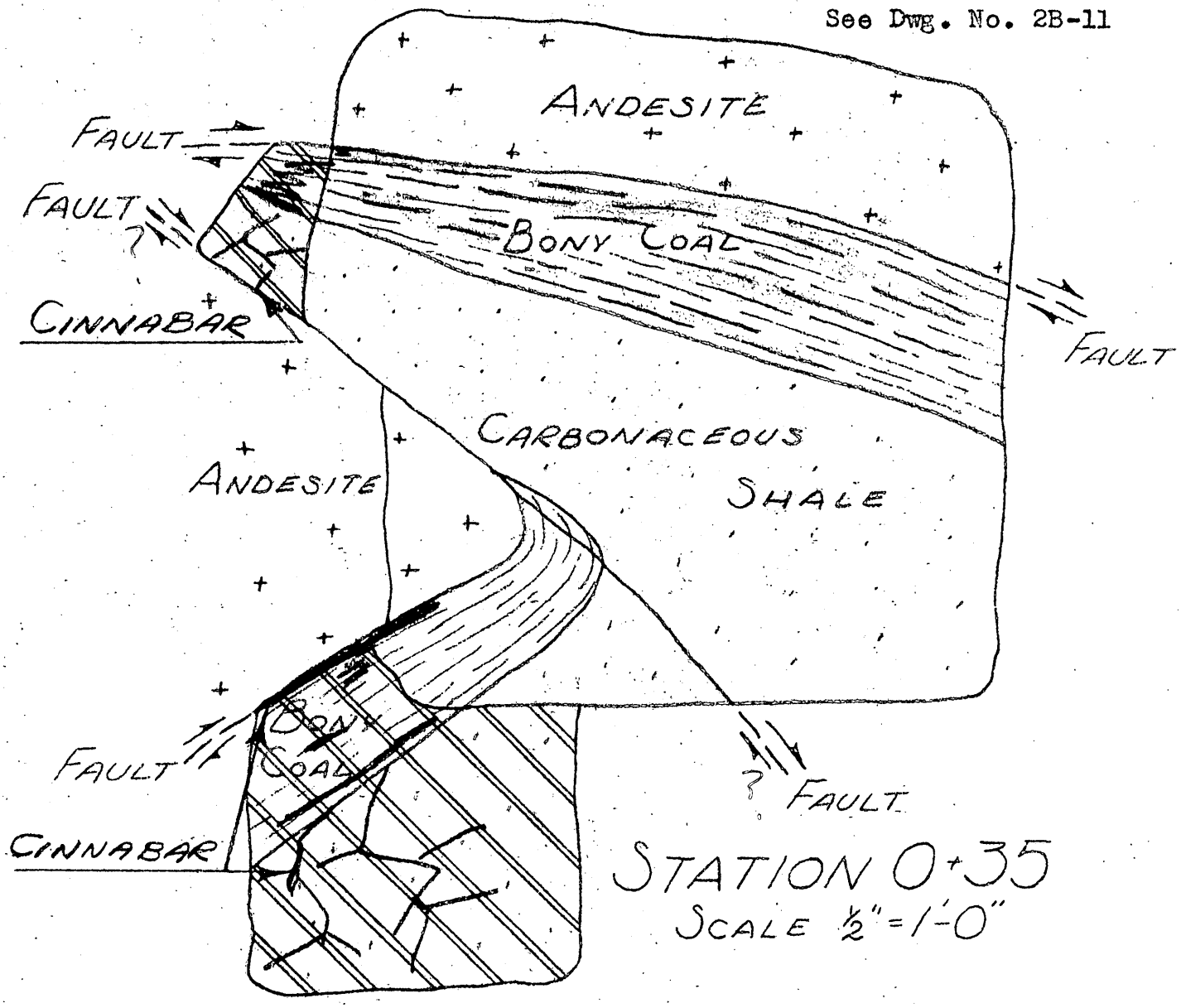
ADIT
AREA MINED

Ore stockpiled from STA. 0+25 to 0+35 averaged 30.1 lbs. mercury per ton.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington
Dwg. No. 2B-16 9/1/57

See Dwg. No. 2B-11

ADIT NO. 1



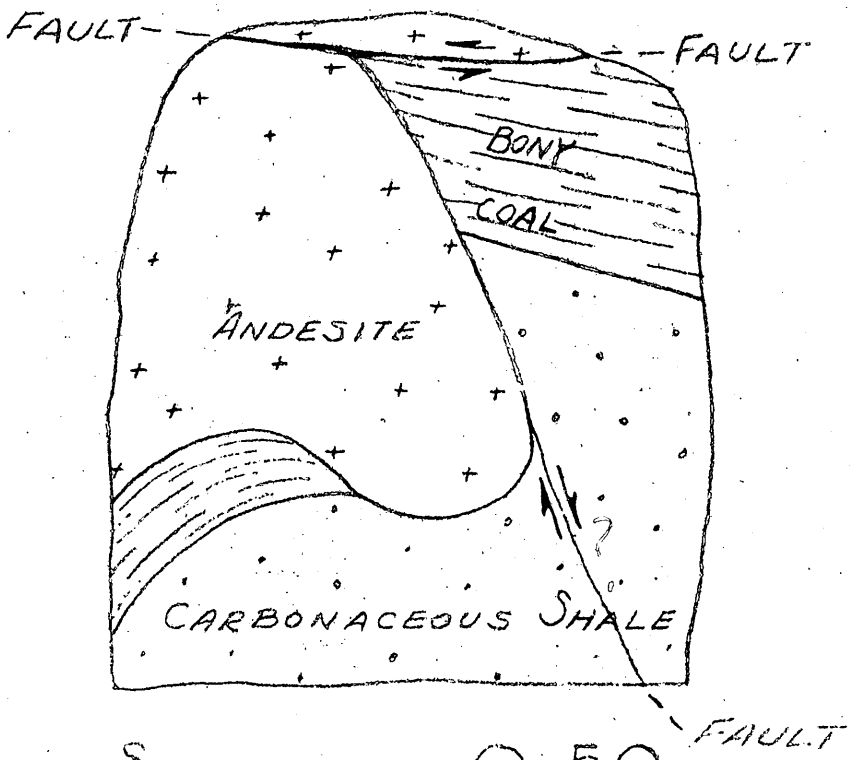
ADIT

AREA MINED

Ore stockpiled from STA. 0+25 to 0+35 averaged 30.1 lbs. mercury per ton.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington
Dwg. No. 2B-17 9/1/57

ADIT No. 1

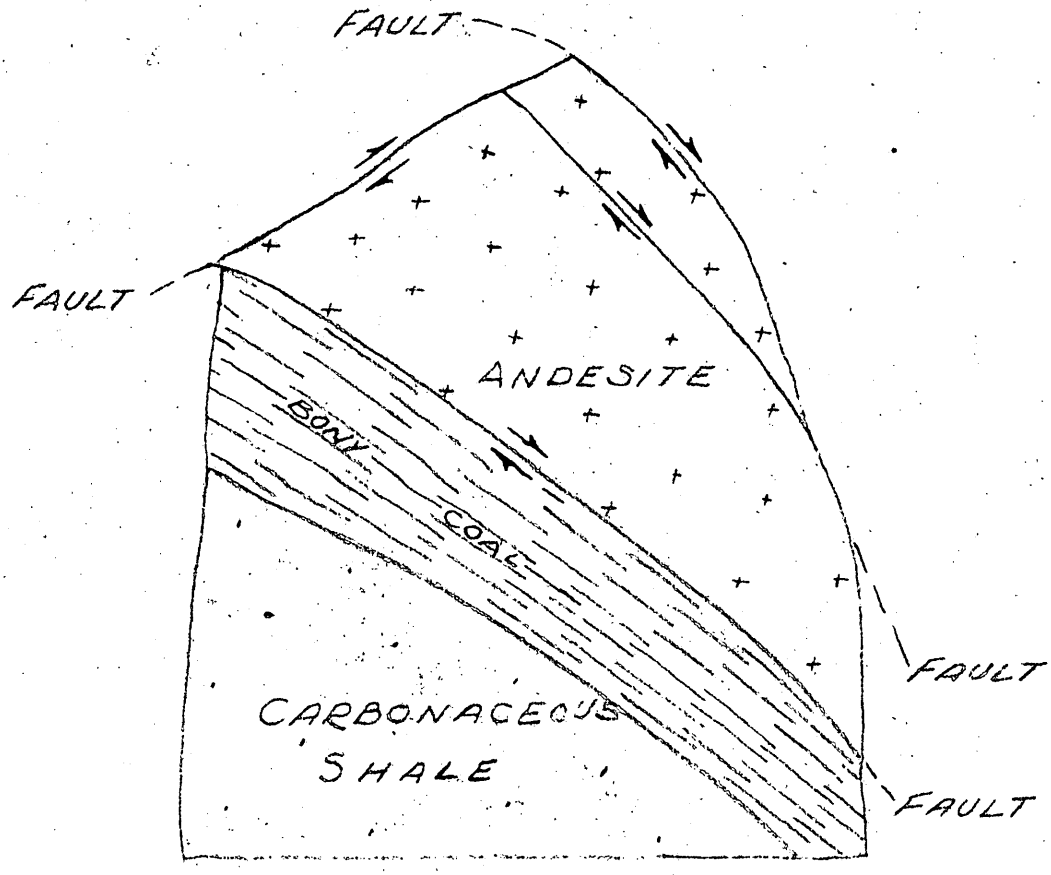


STATION 0+50
SCALE ½" = 1'-0"

NOTES: Andesite is fractured and cemented with calcite and realgar.
Bony coal is fractured and cemented with calcite.
Carbonaceous shale shows fractures with calcite cementing agent.
Channel samples were taken from roof to floor on right side but test for mercury was negative.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington
Dwg. No. 2B-18 9/1/57

ADIT NO. 1



STATION 0+55
SCALE ½" = 1'-0"

NOTES: Andesite remains the same in composition.

Bony coal remains the same in composition.

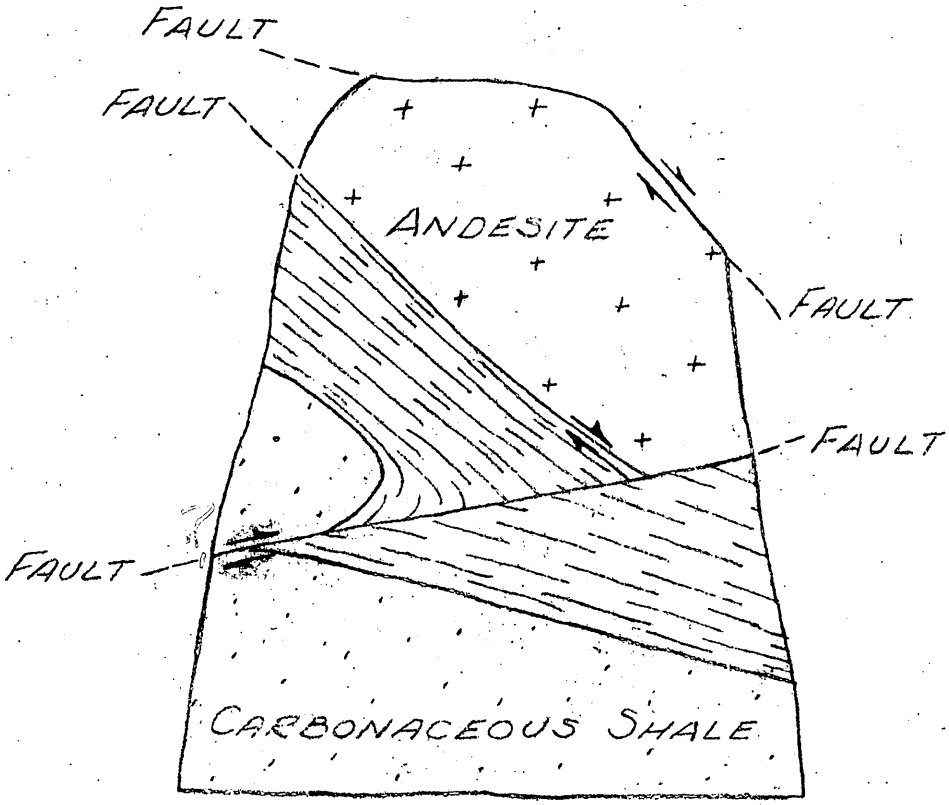
Carbonaceous shale remains the same in composition.

Channel samples were taken from roof to floor on left and right side and test for mercury was negative in both samples.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington

Dwg. No. 2B-19 9/1/57

ADIT NO. 1



STATION 0+60

SCALE ½" = 1'-0"

NOTES: Andesite remains the same in composition.

Bony coal remains the same in composition.

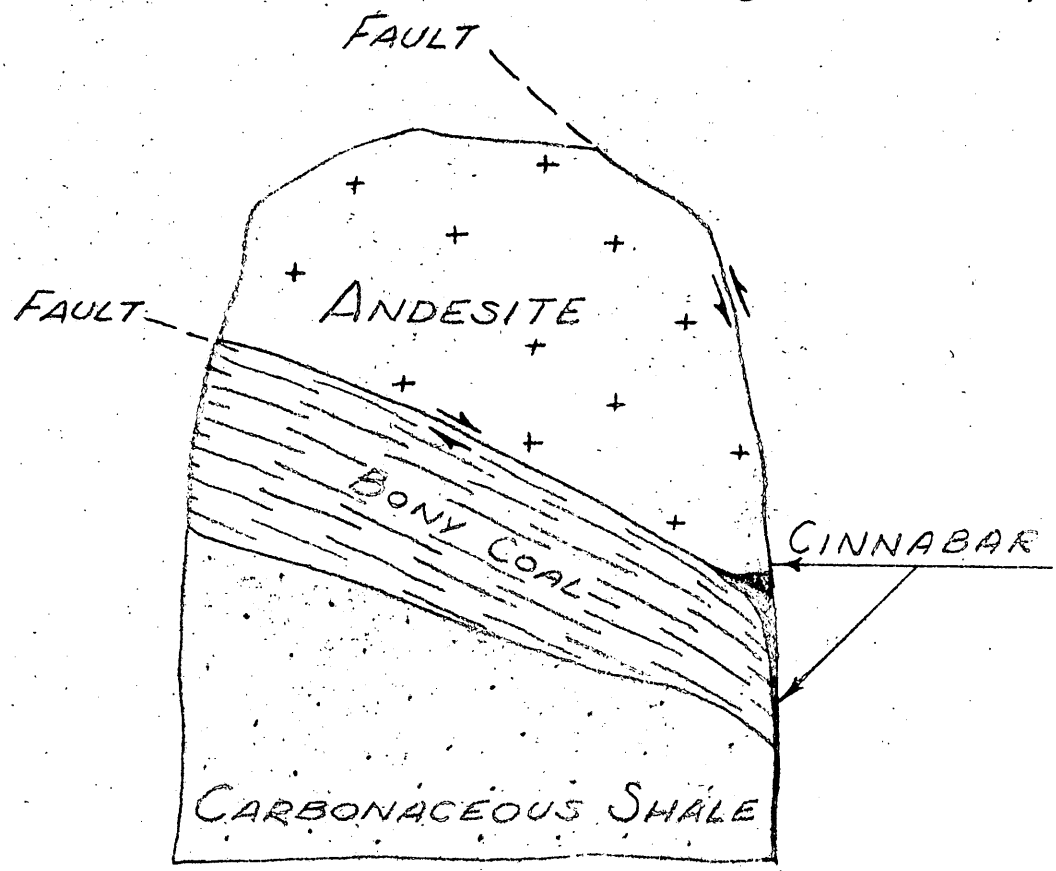
Carbonaceous shale remains the same in composition.

Channel samples were taken from roof to floor on left and right side of face and test for mercury was negative.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington

Dwg. No. 2B-20 9/1/57

ADIT NO. 1



STATION 0+65
SCALE ½" = 1'-0"

NOTES: Andesite remains the same in composition.

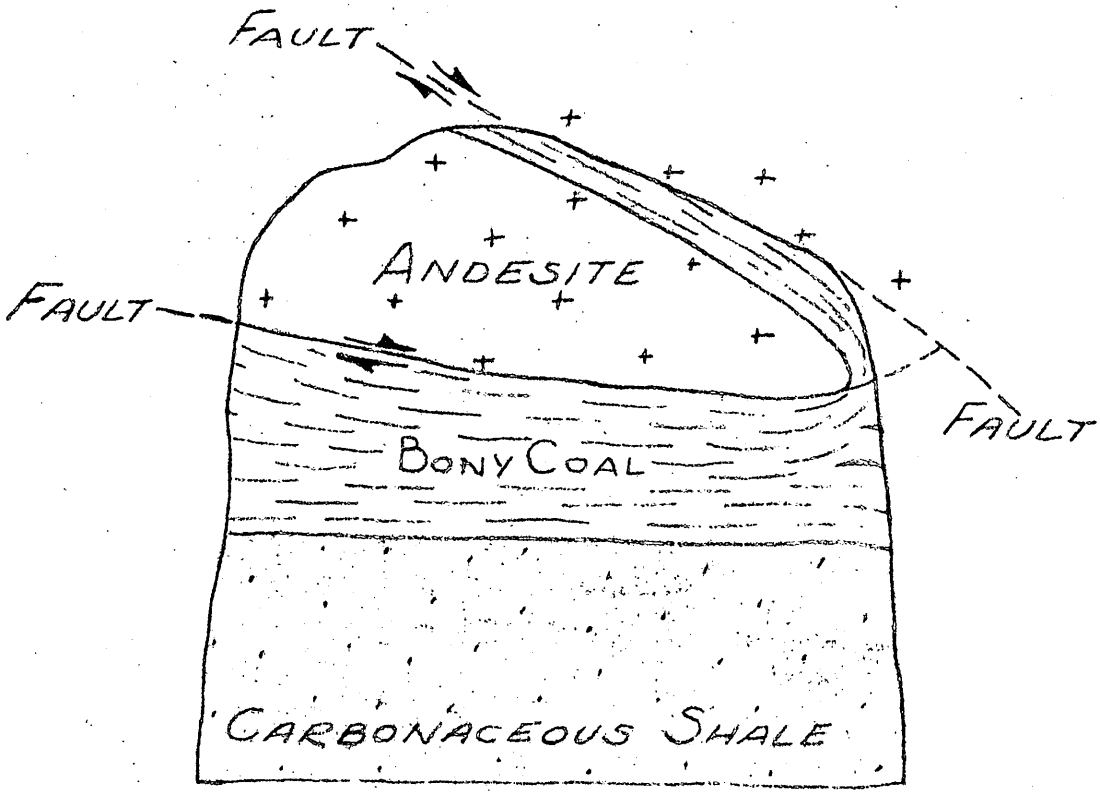
Bony coal remains the same in composition.

Carbonaceous shale remains the same in composition.

Channel samples were taken from roof to floor on left and right side of face. Left side was negative. Right side tests were 1.9 lbs. Hg./ton and 3.3 lbs. Hg./ton for the two tests run.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington
Dwg. No. 2B-21 9/1/57

ADIT NO. 1



STATION 0+70
SCALE ½" = 1'-0"

NOTES: Andesite remains the same in composition.

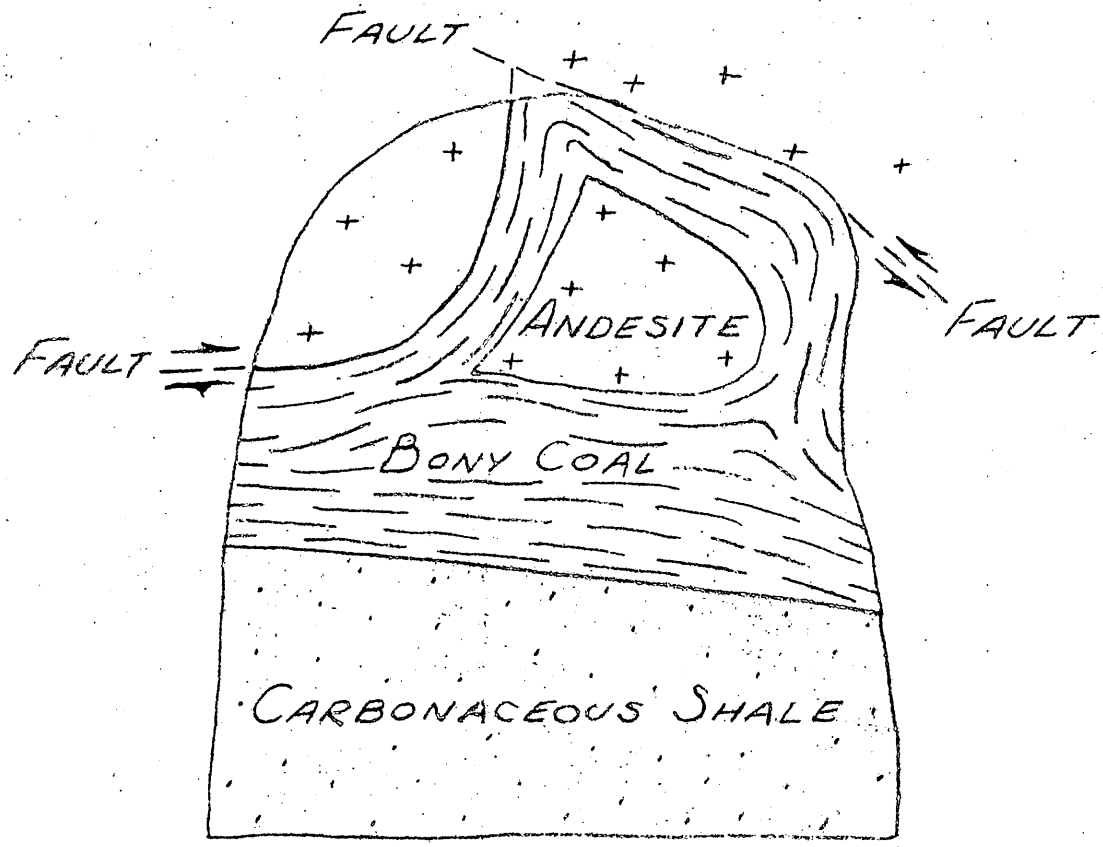
Bony coal remains the same in composition.

Carbonaceous shale remains the same in composition.

Channel samples were taken from roof to floor on left and right side and test for mercury was negative.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington
Dwg. No. 2B-22 9/1/57

ADIT NO. 1



STATION 0+75
SCALE ½" = 1'-0"

NOTES: Andesite remains the same in composition.

Bony coal remains the same in composition.

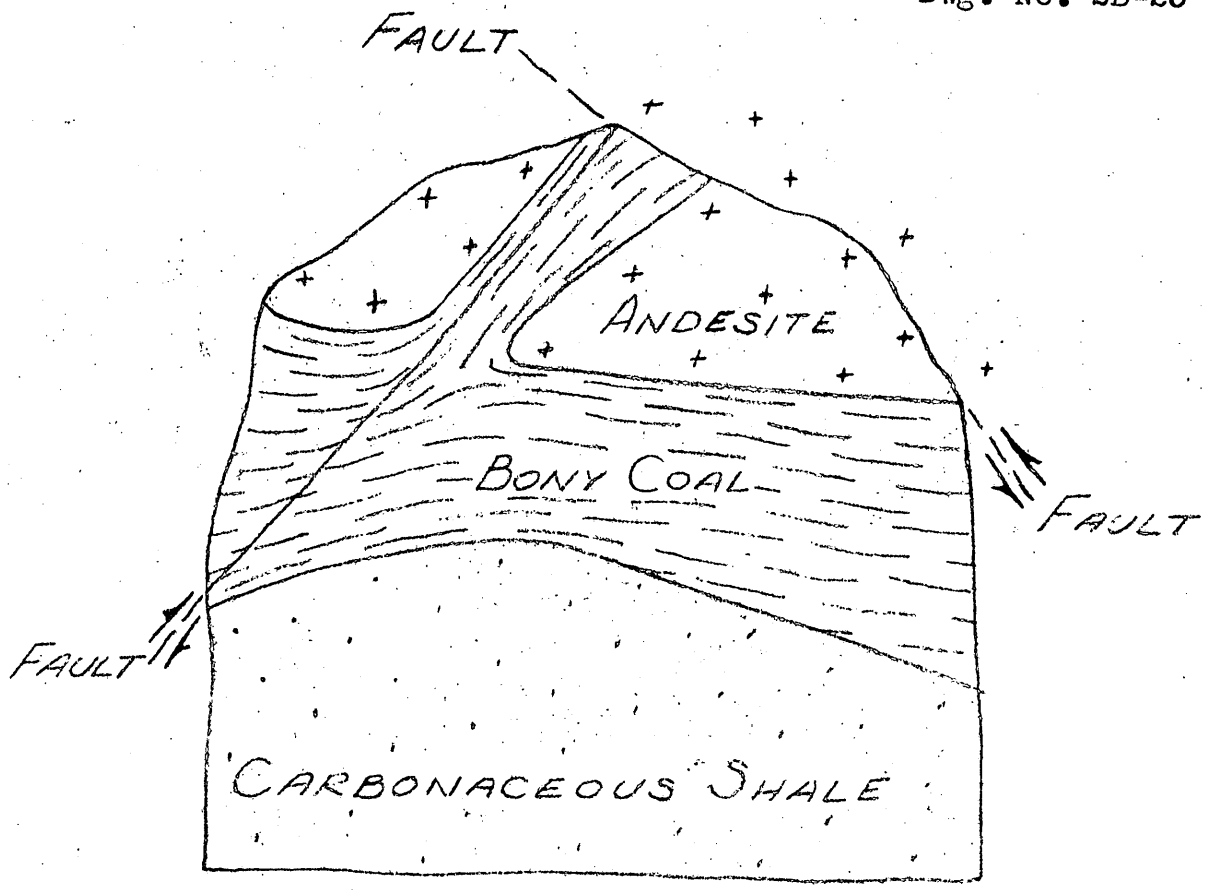
Carbonaceous shale remains the same in composition.

Channel samples were taken from roof to floor on left and right side and test for mercury was negative.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington

Dwg. No. 2B-23 9/1/57

ADIT NO. 1



STATION 0+80
SCALE ½" = 1'-0"

NOTES: Andesite remains the same in composition.

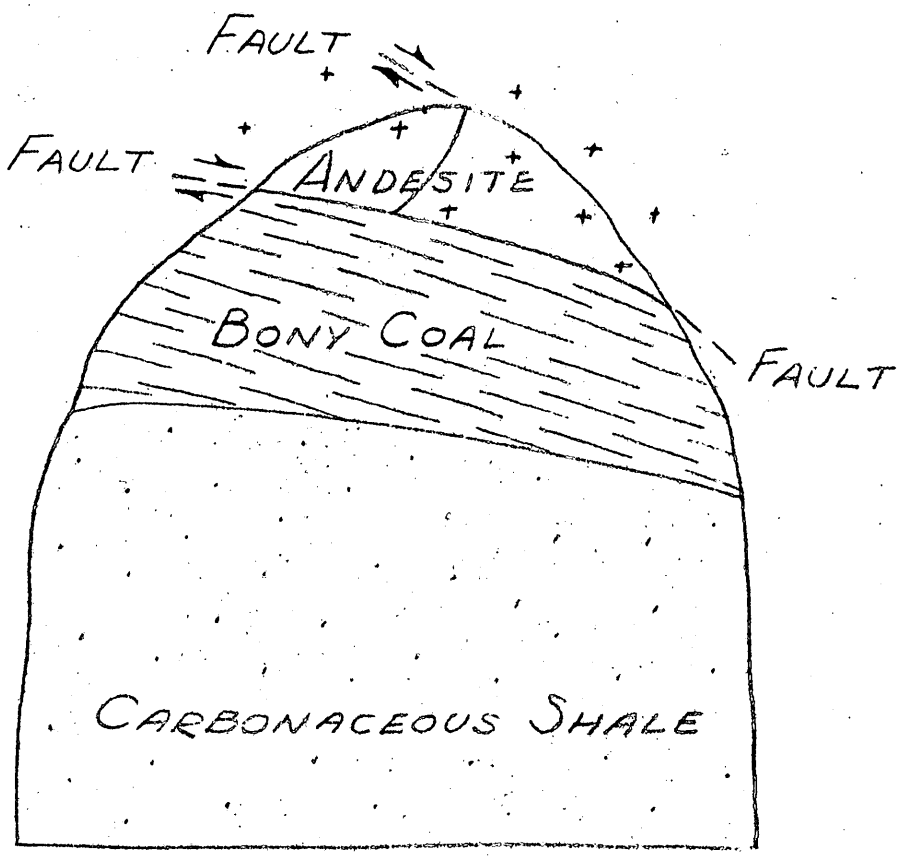
Bony coal remains the same in composition.

Carbonaceous shale remains the same in composition.

Channel samples were taken from roof to floor on left and right side and test for mercury was negative.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington
Dwg. No. 2B-24 9/1/57

ADIT No. 1



STATION 0+85
SCALE ½" = 1'-0"

NOTES: Andesite remains the same in composition.

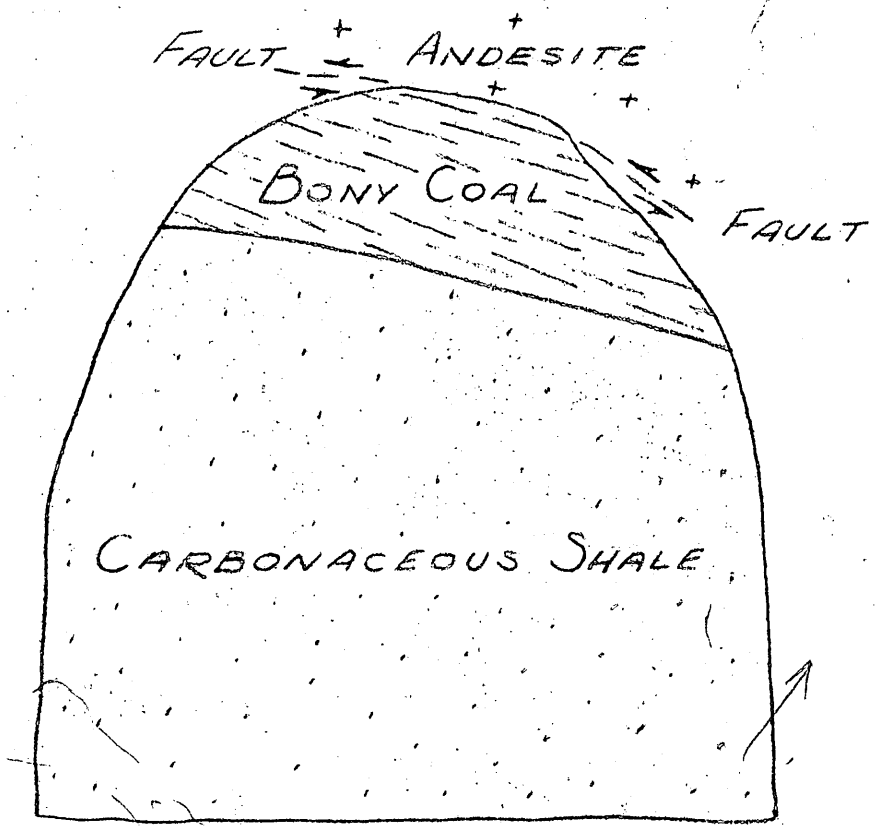
Bony coal remains the same in composition.

Carbonaceous shale remains the same in composition.

Channel samples were taken from roof to floor on left and right side and test for mercury was negative.

WASHINGTON MINING CORPORATION
708 No. Carr Street
Tacoma 3, Washington
Dwg. No. 2B-25 9/1/57

ADIT No. 1



STATION 0+90
THROUGH 1+05

NOTES: Andesite remains the same in composition.

Bony coal remains the same in composition.

Carbonaceous shale remains the same in composition.

Channel samples were taken from roof to floor on left and right side and test for mercury was negative.

OFFICIAL FILE COPY
DMEA
RECEIVED
10/21 GB 220
10/21 WSM 400

So. 157 Howard Street
Spokane 4, Washington

October 15, 1957

Mr. George R. Powe, Manager
Mining Properties & Eastern Lands
Northern Pacific Railway Company
St. Paul 1, Minnesota

Re: Docket No. DMEA-4775 (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Powe:

Enclosed is a copy of our standard form for Consent to Lien and Subordination Agreement as requested in your letter of October 10, 1957.

We note that the exploration permit designated as T&M 3785 from the Northern Pacific Railway Company to the Washington Mining Corporation expires May 9, 1958. It is likely that the Government will regard this as much too short a period and we would like to know whether the lease can be extended.

Sincerely yours,

Good luck!
WSM

A. E. Weissenborn
Executive Officer, DMEA
Field Team Region I

cc: John A. Roller, Pres.
Washington Mining Corp.
3[illegible] Idaho Street
Tacoma 9, Washington

cc DMEA (2) w/incoming
USBM (2) "

NORTHERN PACIFIC RAILWAY COMPANY

PROPERTIES AND INDUSTRIAL DEVELOPMENT DEPARTMENT

ST. PAUL 1, MINN.

GEORGE R. POWE,
MANAGER, MINING PROPERTIES
AND EASTERN LANDS

October 20, 1958

DONALD W. LINDGREN,
CHIEF MINING GEOLOGIST
J. W. BARNETT,
SUPERVISOR, GRAZING
AND CULTIVATION

Nov 1958

Noc
al
albu
DMEA
USBM

U. S. Department of Interior
South 157 Howard Street
Spokane 4, Washington

Gentlemen:

We have been advised by the Washington Mining Corporation of Tacoma, Washington, that an application for a DMEA loan (your Docket No. DMEA-4775) has been filed with your office. The Washington Mining Corporation holds an exploration permit designated as T&M 3785 from the Northern Pacific Railway Company, which grants the Mining Company the right to prospect for, mine, and remove only mercury, arsenic and antimony bearing ores from parts of Section 7, and [illegible] Section 9, and the E½ of Section 17, in Township 21 North, Range 7 East, King County, Washington. The permit expires on May 9, 1958.

We have been asked to give you our views as to the signing of a "Consent to Lien and Subordination Agreement" wherein the rights of the Northern Pacific would be made subordinate to the rights of the United States under the proposed DMEA contract. Matters of this kind must be referred to our Law Department, and if you will send me a copy of the form which we are asked to execute, I will present it to our Law Department for advice.

Yours very truly,

Manager, Mining Properties
and Eastern Lands

GRP:AC

cc--Mr. John A. Miller, Pres.
Washington Mining Corp.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9-25	Hopkins	400
9-25	Martin	400
9/25	GCS	130
"	Johnson	110
"	Waterbury	100
9/26	C	220
		400

SEP 25 1957

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

Re: Docket No. DMEA 4775 - Mercury
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Weissenborn:

Reference is made to the field examination report on the subject property recommending a staged exploration project involving drifting, crosscutting and diamond drilling from underground stations under Stage I. As the Field Team's cost estimate and the application indicate only a "probable" cost of diamond drilling, please request the Applicant to secure and submit bids from at least three drilling contractors for the footage and size holes which you recommend.

We note that the Applicant's map numbered 2 B-1 shows the portal of the tunnel as being 110 feet from the east side line of the subject property and the axis of the anticlinal structure striking N 12°E across the Green River and into land under lease from the Northern Pacific Railway Company. Because of the possible benefits that could be derived from an exploration project, please inform the Applicant that this land (NW¼, SW¼, Sec.9) should be included with the land held in fee. If a Consent to Lien and Subordination Agreement cannot be obtained, a statement to this effect from the lessor should be secured.

Sincerely yours,

George C. Selfridge
(By esf)
Chairman, Operating Committee

APPROVED:

Frank D. Lamb
(By esf)
Member, Bureau of Mines

N. E. Nelson
(By esf)
Member, Geological Survey

JHopkins/dlm 9-25-57
cc to: Code 400
Admr. R. File
Oper. Comm.
Messrs. J. W. Pennington, USBM
T. H. Kilsgaard, USGS
FT. REG. I

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9-23	Hopkins	400
9-23	Martin	400
		130
		110
		100
		220

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

Re: Docket No. DMEA 4775 - Mercury
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Weissenborn:

Reference is made to the field examination report on the subject property recommending a staged exploration project involving drifting, crosscutting and diamond drilling from underground stations under Stage I. As the Field Team's cost estimate and the application indicate only a "probable" cost of diamond drilling, please request the Applicant to secure and submit bids from at least three drilling contractors for the footage and size holes which you recommend.

We note that the Applicant's map numbered 2 B-1 shows the portal of the tunnel as being 110 feet from the east side line of the subject property and the axis of the anticlinal structure striking N 12°E across the Green River and into land under lease from the Northern Pacific Railway Company. Because of the benefits that would be derived from an exploration project, please inform the Applicant that this land (NW¼, SW¼, Sec. 9) should be included with the land held in fee. If a Consent to Lien cannot be obtained, a statement to this effect from the lessor should be secured. Under these circumstances, DMEA might consider accepting a performance bond for a prorated amount of the Government's participation in an exploration project in lieu of the Consent to Lien and Subordination Agreement.

Sincerely yours,

APPROVED:

Chairman, Operating Committee

Member, Bureau of Mines

Member, Geological Survey

JHopkins/dlm 9-23-57
Code 400 FT. REG. I
cc to:
Admr. R. File
Oper. Comm. Messrs. J.W. Pennington, USBM
T. H. Killsgaard, USGS

8623

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 19 1957
IN REPLY REFER TO:

DATE	INITIALS	CODE
9/19	B	220
9/19	WSM	400

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

September 18, 1957
Re; DMEA 4775
Washington Mining Corp.
Royal Reward Mine
King County, Washington
Appl. Est. $122,000
Rec'd Est. $ 67,896 - Mercury

Memorandum

To: W. S. Martin, 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 brand new mercury bearing structure. The mercury as cinnabar, as now understood occurs in bony coal and carbonaceous shale in and near the crest of a tight asymetrical anclinal fold. Also involved in the fold are what appears to have been a conformable 25-foot andesite sill, and an important thrust fault and several faults whose importance is not yet determined.

As illustrated in the application and the report of the examiners, the known cinnabar-bearing carbonaceous material occurs as a relatively small quantity of the bony coal and shale caught up in the andesite, as though it had been pinched off during the folding and faulting.

The staged work program devised by the examiners appears adequate for investigating the size of the cinnabar-bearing inclusion and the downward extent and grade of the less disturbed bony coal and carbonaceous shale strata.

I concur with the recommendation of the examiners and Field Team.

N. E. Nelson

N. E. Nelson

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

September 17, 1957

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: Assistant Chief, Branch of Base Metals

Subject: Review of Field Team examination report, Docket No. DMEA 4775 (mercury), Washington Mining Corporation, Royal Reward Mine, King County, Washington

The applicant proposed to explore for mercury mineralization at the Royal Reward mine by 250 feet of shaft sinking, 950 feet of drifting and crosscutting, 150 feet of raising, and 200 feet of diamond drilling at an estimated total cost of $122,000.00.

Examination of the property indicated that further exploration was warranted; however, the examining teams have proposed a modified two-stage program: Stage 1 would consist of 200 feet of drifting on fault and/or on mercury mineralization, 50 feet of crosscutting, cutting a drilling station, and 1000 feet of diamond drilling to explore the structures at depth. Dependent upon the results of Stage 1, Stage 2 would consist of 200 feet of shaft sinking and 500 feet of drifting and/or crosscutting. Total estimated cost of the modified program would be $67,896.00.

I concur with the recommendations of the Field Team that a modified two-stage program of exploration be approved.

J. W. Pennington

J. W. Pennington

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard, U.S.G.S.
F. D. Lamb
Files

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 18 1957

DATE	INITIALS	CODE
9-18	C	220
9/18	WSM	400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 16 1957

DATE	INITIALS	CODE
9/16	C	220
		130
9/19	B	220
9/19	WSM	400

September 13, 1957

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

Re: Docket No. DMEA-4775 (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Selfridge:

Enclosed are three copies of a memorandum examination report on the subject property by E. A. Magill, Mining Engineer of the Bureau of Mines, and R. D. Sample, Geologist of the Geological Survey.

Concentrations of cinnabar associated with realgar are found in fractures and shear planes in bony coal and carbonaceous shale beds and an altered andesite sill near the top of an anticline. Sample and Magill conclude that the chance of finding significant amounts of cinnabar are fair or better, and recommend that a modified two-stage program be approved.

The Field Team concurs with the examiners' conclusions and recommendations.

By Field Team, Region I

D. R. MacLaren
D. R. MacLaren, Alternate
Acting Exec. Officer
U. S. Geological Survey

Thomas E. Howard
Thomas E. Howard, Acting Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USGS (SRO)
Sample

Reviewed by
DMEA OPERATING COMMITTEE
9-18-57
(date)

ON SITE EXAM

OFFICIAL FILE COPY DMEA RECEIVED SEP 16 1957		
DATE	INITIALS	CODE
		130
		220

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

September 10, 1957

Memorandum

To: DMEA Field Team, Region I

From: E. A. Magill, Mining Engineer, U. S. Bureau of Mines and
R. D. Sample, Geologist, U. S. Geological Survey

Subject: Field Examination Report, Docket No. DMEA-4775 (mercury), Washington Mining Corporation, Royal Reward Mine, King County, Washington

Reviewed by
DMEA OPERATING COMMITTEE
9-18-57
(date)

INTRODUCTION

The Washington Mining Corporation submitted an application on June 26, 1957, for Defense Minerals Exploration Administration aid to explore for mercury at the Royal Reward mine, King County, Washington.

SUMMARY

The property was examined on June 27, 1957, by the examining team accompanied by John Roller, L. V. Berkshire, R. N. Ljungdahl, and H. S. Baarslag, Jr., representing the company.

The mercury showing on which the applicant is working was discovered in February 1957 and represents a discovery in a new district as far as mercury is concerned. The applicant is developing an occurrence which outcrops along a fault near the crest of a very tight anticline by driving an adit about 20 feet above the river level. At the time of the examination, the adit was 50 feet long. The country rock consists of carbonaceous shales, bone coal, sandstone and andesite. Cinnabar and metacinnabarite are associated with realgar and orpiment in a gangue of carbonaceous shale. From the 50-foot adit the applicant has produced five flasks of mercury and has stockpiled about 50 tons of ore which assays 6.8 pounds per ton. = 4 flasks @ 90% or total of 9 @ $249.00 = $2193.00

The discovery definitely warrants further exploration; however, it is felt that the applicant's proposal should be somewhat modified. The applicant requests 250 feet of shaft sinking, 950 feet of drifting and crosscutting, 150 feet of raising, and 200 feet of diamond drilling. The examining team recommends a two-stage program to consist of 250 feet of drifting and crosscutting and 1,000 feet of diamond drilling in Stage 1, and 200 feet of shaft sinking and 500 feet of drifting and crosscutting in Stage 2.

50 x 5 x 7 / 12.5 = 140 Tons

2193 / 140 = $15.60 / Ton

CONCLUSIONS AND RECOMMENDATIONS

The Royal Reward mine represents a discovery of mercury in a new area and from the results of the exploration already carried out by the applicant , further exploration is warranted. Because of the location of the deposit (i. e., near the Green River) exploration in Stage 2 will be difficult, shaft sinking will undoubtedly be accompanied by a water problem and precautions will be necessary to protect the workers when working below the river level.

It is recommended by the examining team that a modified two-stage exploration program in the amount of $67,896 be entered into with the applicant.

LOCATION AND ACCESSIBILITY

The mine workings are located in the NE¼SE¼, sec. 8, T. 21 N., R. 7 E. W. M., King County, Washington. Tacoma, Washington is 30 miles by state and county roads. The mine is 1½ miles by dirt road from the county road. Inasmuch as the portal of the adit is on the steep bank of the Green River, it is necessary to move supplies from the end of the road to the portal by a cableway several hundred feet in length which has a drop of about 50 feet.

APPLICANT

The Washington Mining Corporation is apparently a closed corporation. All the officers of the corporation are very active in directing its activities. They claim that they have made arrangements for Mr. Burton Avery to become their superintendent on or about August 1, 1957. Mr. Avery has been superintendent of the Bonanza Mercury Mine at Sutherlin, Oregon, and is an excellent operator with 20 years experience in mercury mining.

PROPERTY RIGHTS

The applicant owns the approximately 40 acres on which the present workings are located (fig. 1). They have a lease on the property to the east from the Northern Pacific Railroad and on the property to the west from the Weyerhauser Timber Company. However, all that is included in their application is the NE¼SE¼ of sec. 8. According to the applicant's map, Drawing 2B-14, submitted with the application it can be seen that the line between sections 8 and 9 runs very close to the mine workings. According to the applicant's drawing 2B-1 the present workings are located 110 feet to the west of the section line.

Because the mine workings appear to be so near the section line, it would seem that at least part of the adjoining ground in section 9 should be included in the property rights. However, the applicant will undoubtedly have difficulty in obtaining a subordination agreement from the Northern Pacific Railroad and would probably have to obligate themselves for repayment. If a contract is offered, a provision binding the company to pay royalty on any ore transported through the DMEA workings might serve this purpose.

DESCRIPTION OF THE PROPERTY

The mine was operating at the time of the examination; two men were working underground sinking a short inclined winze near the face of the adit. The property is equipped for a small mining operation; air is furnished by a 105 cfm gasoline-driven compressor; drilling is by jackhammer and jacklegs. A double drum gasoline-driven hoist is used to operate a slack line tram to supply material to the portal and to haul ore up to the end of the access road. The access road ends on a flat area about 80 feet above the river level. The flat area is of sufficient size to accommodate any facilities that are necessary to carry out the exploration program.

The applicant has built an experimental propane gas-fired batch retort which holds 60 pounds or more of ore. They have used this to retort five flasks of quicksilver from ore removed in driving the present adit.

At the time of the examination an adit 50 feet in length had been driven on the ore. This adit is 20 feet above the high water mark at an altitude of 615 feet.

GEOLOGY

The Royal Reward mercury prospect lies in the southern portion of the old coal field district of King County, Washington. These coal fields cover an area of about 336 square miles on the western slope of the Cascade Mountains, and consist of sedimentary and volcanic rocks ranging in age from Eocene to Pliocene. These rocks have been folded and faulted into long northeasterly trending structures, then eroded and buried beneath deposits of glacial drift and alluvium. The pre-glacial rocks are an alternating series of shale, carbonaceous shale, coal beds, and sandstone which have been intruded irregularly by andesite dikes and sills. The occurrence of cinnabar with associated realgar and orpiment has been reported in the coal deposits but were never considered to be of commercial significance. The cinnabar deposits at the Royal Reward mine are the first in the district reported to have commercial possibilities.

Structure

The dominant structural feature at the Royal Reward property is the north-trending asymmetrical anticline which has been bisected by a relatively low-angle thrust fault with a displacement of approximately 15 feet (pl. 1). It is one of a series of parallel anticlines, and its crest line has been traced intermittently for over a mile. Minor faults and joint cracks are also evident along the crest of the anticline. The limbs of the anticline dip about 40° to the east and from 60°-75° to the west. The thrust fault appears to be local and is not known to extend any great distance. Dense timber, undergrowth and glacial wash inhibits the tracing of the structures on the surface. Calcite- and gouge-filled cracks are numerous throughout the mine workings.

Mineralization and Tenor of Ore

The host rocks for cinnabar (HgS), realgar (AsS), and orpiment (As_2S_3) are the beds of bony coal, carbonaceous shale, and an altered andesite sill which lies above the coal and shale beds; calcite fills the cracks and joints and acts as a cementing material for all the host rocks. Concentrations of cinnabar and arsenic minerals are more pronounced in the fractures and shear planes near the top of the anticline. It is not clear whether the faulted and sheared structures or the anticlinal structure are the controlling factors of concentration, but it is probably a combination of the two. Although most of the visible cinnabar is found as fillings in the tiny seams and fracture openings of the host rocks, there are many fine disseminated particles scattered throughout the coal, shale and andesite rocks. From five faces, as the adit advanced, eight channel samples were taken by the applicant (pl. 1). These show the average tenor of cinnabar mineralization to be 14.4 pounds per ton. Three samples taken by the examiners show the following results:

Sample No.	Nature of sample	Hg Lbs/ton	As %	Remarks
EAM 57-5	Channel 5.0'	0.8	--	Taken across structure in adit 40' from portal.
EAM 57-6	Grab	1.4	0.18	Adit dump.
EAM 57-7	Grab	6.8	0.09	Stockpile at hoist station above adit.

Select samples, which averaged 20 pounds of mercury per ton, were taken by the applicant from the stockpile. These were retorted in a small pilot plant and produced five flasks of mercury. Four of

the flasks, with a combined net weight of 311 pounds of mercury, were sold to Quicksilver Products, Inc. of Los Angeles for a net value of $991.89 or $247.97 per flask.

Igneous Rocks

The only igneous rock observed during the examination was the andesite which appears to have intruded the Tertiary sedimentary rocks as a sill, although it probably cuts across the beds at places in the immediate area. This andesite sill is greatly altered and decomposed at and near the surface but is somewhat fresher underground and below the zone of oxidization. Noticeable blebs and streaks of cinnabar and realgar are present in the altered andesite near the contact with the coaly and shaly beds. It was in this sill or dike body that the presence of cinnabar and realgar were first reported in the coal district; none of the earlier prospects proved to be of commercial value, however.

PAST OPERATION

Realgar and orpiment have been observed along the Green River Gorge for many years. Cinnabar had been noted but it was not until February 1957, when L. V. Berkshire discovered the Royal Reward deposit, that the possibility that cinnabar might occur in commercial quantities was realized. This discovery was made by following float up the river and prospecting the river banks.

Since February the property has been developed by construction of an access road, by a 50-foot adit, and the installation of an experimental furnace.

MANPOWER AND SUPPLIES

Larger items of supply are readily available in Seattle and Tacoma. Small supplies and living quarters are available at Cumberland which is 5 miles from the mine.

There is ample manpower in the area. The area has produced coal for many years but the coal mines are now largely closed down because of high production costs and lack of market. Wage scales in the nearby coal mines average a little over $22 per day. At the present time the applicant is paying miners $2.50 per hour.

Local fir timber is available at $75 per thousand. Ample water is available for all purposes from the river. If a shaft is sunk, water will undoubtedly be one of the problems encountered. It is expected that heavy flows of water will hamper operations below the river level. In order to handle the water flow encountered in shaft sinking it would undoubtedly be advisable to bring in electric power. In order to do this it will be necessary to construct a 6800-foot power line and install transformers.

APPLICANT'S PROPOSAL

The applicant proposes to explore the property by sinking a 270-foot shaft and drifting and crosscutting a total of 900 feet on the 220 level (250 feet beneath the surface), raising 150 feet on the structure and diamond drilling 200 feet to check the structure as the shaft is sunk.

The total cost of the proposed program is estimated to be $122,005 with the Government's participation at 75 percent.

This proposal by the applicant is based on the belief that the mercury mineralization is controlled by the anticlinal structure. However, it is believed by the examining team that the anticlinal structure may not be the predominant structure but that a fault or possibly a number of faults may be an important factor in the mineralization.

EXAMINING TEAM'S PROPOSAL

The examining team proposes a somewhat modified two-stage program based upon the assumption that the fault which can be seen in the face of the cliff near the portal and which has been intersected underground plays an important part in the mineralization. However, the anticlinal structure should be tested. Consequently, the following program is proposed (pl. 2):

Stage 1

1. Drift 200 feet southerly on fault and/or on mercury mineralization (if it occurs along crest of anticline).

2. Crosscut westerly 50 feet.

3. Cut core drill station.

4. 1,000 feet of diamond drilling from the drift and the crosscut to explore the structures at depth.

If Stage 1 determines that mercury mineralization occurs at depth, then Stage 2 will be entered into.

Stage 2

1. From the surface, sink a maximum of 200 feet (including 20-foot sump).

2. From the shaft, drift and/or crosscut a maximum of 500 feet.

Participation in Stage 2 would be dependent upon the results of Stage 1.

Expected starting date would be within 30 days and completion would be within one year.

Details of Estimated Costs

The applicant gives a detailed breakdown of his estimated costs on pages 9-15 of his application. These costs compared with the examining team's estimates are as follows:

Drifting and Crosscutting on 60-foot Level
(main adit level 20 feet above river level)

	Applicant's * per foot estimate	Exam. Team's * per foot estimate
Labor		
Drilling, loading, mucking, tramming - 16 hrs. @ $2.75/hr.	$ 11.00	$ 11.00
Misc. 4 hrs. @ $2.50/hr.	2.50	—
Industrial insur. and medical aid	1.25	1.03
Payroll taxes @ 6%	.81	.87
Supervision	3.50	3.50
Engineering, mapping, and assaying **	2.00	—
	$ 21.06	$ 16.40

* Estimates based on 4 feet per shift.
**Assaying considered separately.

Supplies

35# Gelex No. 2 Powder @ 25¢/lb.	$ 3.12	$ 2.19
18 electric delay detonators @ 26¢/ea.	1.17	1.17
Leadwire	.20	.20
Drill steel	1.00	1.50
Compressed air	3.31	3.31
Ties - 4"x6"x3' on 3' centers @ $75/M	.24	.14
1" pipe water line (less 50% salv.)	.28	.14
2" pipe air line (less 50% salv.)	.58	.29
20# mine rail (less 50% salv.)	1.08	.54
Track bolts, spikes and plates	.25	.25
Pipe fittings, valves and misc. (less 50% salv.)	.25	.13
Vent pipe, 8" dia. @ $1.25/ft.	1.25	—
State sales tax @ 3-1/3%	.42	.36
	13.15	10.22
Emergencies, contingencies & misc. 10% contingencies	1.92	2.66
Total cost per foot, untimbered	$ 36.13	$ 29.28

16.40
10.22
26.62

Timbering - Drifts and Crosscuts

	Applicant's per foot estimate	Exam. Team's per foot estimate
208 BFM Douglas fir timbers	$ 5.37	
Labor - trimming	3.00	
2 posts 8"x8"x7' = 75 BF		
1 cap 8"x8"x6' = 32		
2 girts 4"x6"x5' = 20		
10 lagging 3"x12"x6' = 180		
(6 back and 4 side average)		
Total 307 BF @ $75/M		$23.02
Sales tax		.77
		23.79
Sets on 5' centers give		4.75/ft.
Labor - 4 hrs. @ $3.00/hr. ($2.75 base plus 6% plus 0.077/hr. medical aid, etc.)		2.40/ft.
Total	$ 8.37	$ 7.15 ok.

Headframe

Applicant's estimate: 40' high with head sheave and concrete foundation.
Exam. team's estimate: 30' headframe and bins.

	Applicant's est. cost	Exam. Team's est. cost
Labor	$3,000.00	
Timber - 10 M @ $100	1,000.00	
Head sheave, rods, etc.	1,000.00	
Concrete in place	250.00	
Labor - 40 manshifts		$1,000.00
Timber - 8 M BF @ $75/M		600.00
Head sheave, rods, etc.		350.00
Concrete foundation		250.00
Bucket and guides		500.00
Hoist furnished by applicant at no charge to project		
Total	$5,250.00	$2,700.00 ?

Vertical Shaft

Sinking 200 feet of 5'x11' shaft, manway and skipway.
1.7 feet per shift, 2 shifts per day, 6 days per week.

		Applicant's per foot estimate	Exam. Team's per foot estimate
Labor			
Drilling	16 hrs. @ $3.00/hr.	$ 9.60	$ 9.60
Mucking	16 hrs. @ 3.00/hr.	9.60	9.60
Timbering	16 hrs. @ 3.00/hr.	9.60	9.60
Skip tender	8 hrs. @ 3.00/hr.	4.80	—
Hoistman-skiptender	8 hrs. @ 2.75/hr.	—	4.40
Framing timbers, pumping & misc.	24 hrs. @ 2.50/hr.	12.00	—
	8 hrs. @ 2.50/hr.		4.00
Indus. insur. and medical aid		4.00	2.83
Payroll taxes - 6%		2.74	2.83
Supervision		10.00	10.00
Engineering, mapping and sampling		5.00	—
Total		$ 67.35	$ 52.86
Supplies			
Fir timber & lagging, 190 FBM	@ $100/M	19.00	—
Fir timber & lagging, 190 BF	@ 75/M		14.22
Oak guides	@ 300/M	.78	.78
75# Gelex blasting powder	@ 25¢/#	3.75	3.75
24 electric detonators	@ 26¢/ea.	1.25	1.25
Leadwire		.20	.20
Drill steel		2.50	2.50
Hanging rods		3.60	—
8 - 1"x7' bolts @ 27#/ea. @ $180/ton			2.70
1-inch black pipe water line		.28	
1-inch " " " "	(less 50% salv.)		.14
2-inch black pipe air line		.58	
2-inch " " " "	(less 50% salv.)		.29
8-inch black pipe pump line		3.25	
8-inch " " " "	(less 50% salv.)		1.63
8-inch ventilation pipe		1.25	
12-inch " "	(less 50% salv.)		.62
*Compressed air		7.95	7.95
Hoisting and lowering		7.95	—
Pumping (500 to 1,000 GPM)		16.00	16.00
State sales tax (3-1/3%)		1.24	1.26
		$ 69.58	$ 53.29

*This unit cost includes the furnishing of a compressor by the applicant.

Pump Installation

Deep well turbine pump	$3,500.00
Transformers and switches	5,500.00
	9,000.00
Less salvage value @ 50%	4,500.00
	$4,500.00

4500 ÷ 700' = $6.43/ft.

(200' shaft and 500' drifting on 100 level)

Total cost of vertical shaft:	Labor	52.86
	Supplies	53.29
	Pumping	6.43
	Cost per foot	$112.58

Drifting and crosscutting on 100 level

500 feet drifting or crosscutting
4 feet per shift, 2 shifts per day, 5 days per week

		Applicant's per foot estimate	Exam. Team's per foot estimate
Labor			
Drilling, mucking, loading, tramming	16 hrs. @ $2.75/hr.	$11.00	$11.00
Hoistman	8 hrs. @ 2.75/hr.	5.50	5.50
Skiptender	4 hrs. @ 2.75/hr.	2.75	—
Pumpman	4 hrs. @ 2.50/hr.	2.50	—
Miscellaneous	4 hrs. @ 2.75/hr.	2.75	—
Indus. insur. & medical air		2.25	1.60
Payroll taxes @ 6%		1.47	1.20
Supervision		3.50	3.50
Engineering, mapping and assaying		2.00	—
		$33.72	$22.80
Supplies			
35# Gelex No. 2 powder @ 25¢/#		3.12	2.19
5 ~~18~~ detonators	@ 26¢/ea.	1.17	1.17
Leadwire		.20	.20
Drill steel		1.00	1.50
*Compressed air		3.31	3.31
Hoisting		3.00	—
Power only			1.00
Douglas fir ties		.24	.14
1-in. black pipe, water	(less 50% salv.)	.28	.14
2-in. black pipe, air	(less 50% salv.)	.58	.29
20# mine rail @ 8¢/#	(less 50% salv.)	1.08	.54
Track bolts, spikes and plates		.25	.25
Pipe fittings, valves, misc.	(less 50% salv.)	.25	.13
Vent pipe, 8" flex.	(less 25% salv.)	1.25	.94
Pumping 500 to 1,000 GPM		5.50	2.00 **
State sales tax (3-1/3%)		.78	.31
		22.01	14.11
Contingencies		3.90	—
Prorata share of pump installation			6.43
Total cost per foot of untimbered drift on 100 level with less than 100 GPM		$60.63	$43.34
Total cost per foot of untimbered drift on 100 level with over 100 GPM - add $3.50			$46.84

Our estimate $35.00/ft

Field $36.91

Not Used

*Includes purchase of compressor by applicant.
**If over 100 GPM for full 24 hrs., the extra $3.50/ft. to be allowed.

Note: The average wages used in the above estimates are necessary because the mine is in a coal mining district and the wages are based on that standard.

Diamond Drill Costs

The applicant estimates his diamond drilling costs at $4.00 per foot for EX size core. It is believed that EX size core is too small a size for good recovery in the relatively soft formation. It would be much more practical to drill a minimum of AX size. Contract drill costs in the area for AX size are around $5.50 per foot for the amount of drilling called for in the contract. An additional $1.50 is added for supervision, miscellaneous, etc.

SUMMARY OF ESTIMATED COSTS OF PROJECT

Stage I

250 feet of drifting & crosscutting	@	$29.28/ft.	$ 7,320.00
200 feet of timbering	@	7.15/ft.	1,430.00
Diamond drill station			250.00
1,000 feet AX size diamond drilling	@	7.00/ft.	7,000.00
50 mercury assays	@	4.00/ea.	200.00
Cost of Stage I			$16,200.00

Stage II

Shaft headframe			$ 2,700.00
Sink shaft 200 feet	@	$112.58/ft.	22,516.00
500 feet drift and/or crosscut	@	43.34/ft.	21,670.00
Allowance for excess water, 500 ft.	@	3.50/ft.	1,750.00
400 feet timbering	@	7.15/ft.	2,860.00
50 mercury assays	@	4.00/ea.	200.00
Cost of Stage II			$51,696.00

Total cost of project	$67,896.00
Government participation @ 75%	$50,922.00

Attachments 3

Distribution:
DMEA (3)
USBM (5)
USGS(SRO)
Docket
Sample

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 3 1957
CODE
9/3 C 220
9/3 WSM 400

So. 157 Howard Street
Spokane 4, Washington

August 30, 1957

Mr. John A. Roller, President
Washington Mining Corporation
38 Idaho Street
Tacoma 9, Washington

Re: Docket No. DMEA-4775 (Mercury)
Washington Mining Corporation
Royal Reward Mine
King County, Washington

Dear Mr. Roller:

Thank you for your letter and your telephone call of August 28, 1957.

The examiners' report is in the final stage of preparation and should be completed within a few days.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

cc: DMEA(2) w/2 copies incoming and encl.
U.BM(2)
Sample w/copy incoming w/o encl.

WASHINGTON MINING CORPORATION

38 IDAHO STREET
TACOMA 9, WASHINGTON

[redacted] A. Roller

[redacted]

Mr. A.E. Weissenborn
Regional Director
Defense Minerals Exploration Administration
South 157 Howard Street
Spokane 4, Washington

Dear Mr. Weissenborn:

Enclosed please find a copy of a report prepared for Marshall T. Huntley, Supervisor, Division of Mines & Geology, Department of Conservation, State of Washington by Vaughn E. Livingston regarding our mercury program on the Green River. We trust it will be of interest to your office. We have made considerable progress in the construction of our new retorts and general exploration program since this report.

We wish to thank Mr. Robertson of your office for the interest shown in our project and would appreciate a copy of his report if it is made public.

We have not recieved any information as to the present status of our DMEA application #4775. Any information which your office may have as to its present disposition would be of help in planning our further exploration. This time of year is the best to commence underground exploration because of low water conditions.

We wish to thank you in advance for your help in this matter.

Very truly yours,

John A. Roller, President

JAR:rr

cc: E.A. McGill
U.S. Geological Survey
Federal Office Building
Seattle, Washington

STATE OF WASHINGTON

Department of Conservation

EARL COE DIRECTOR

335 GENERAL ADMINISTRATION BUILDING

OLYMPIA

DIVISIONS

RECLAMATION
FLOOD CONTROL
WATER RESOURCES
MINES AND GEOLOGY
COLUMBIA BASIN PROJECT
POWER RESOURCES
WEATHER MODIFICATION

June 25, 1957

MEMORANDUM

TO: Marshall T. Huntting, Supervisor, Division of Mines and Geology

FROM: Vaughn E. Livingston, Geologist, Division of Mines and Geology

SUBJECT: Investigation on June 21, 1957 of the Royal Rosary Mercury mine
owned by: Washington Mining Corporation
Box 66
Palmer, Washington

Location: About 1.8 airline miles west of Kanaskat in the NW¼SW¼ sec. 9, (21-7W) at the bottom of the Green River Gorge. Cumberland 7.5-minute quadrangle.

Elevation: 600 ± 10 feet, 15 feet above the river level.

Minerals: Cinnabar, realgar, orpiment.

Access: Drive northward out of Enumclaw on Highway 5 for 3.5 miles. Turn east off from the paved highway onto an improved gravel road. Follow this road northeastward for approximately 4.3 miles to point where the pavement begins. The road forks here; take the unpaved east fork for approximately 0.5 mile to an unimproved dirt road that departs to the left of the main road at about 90°. Follow this road, keeping to the right at its only fork, to the edge of the Green River Gorge and then down to the mine. It is best to check the condition of the road from the top of the gorge to the bottom before taking a car down.

Development and improvements: A large flat terrace just above the incline has been cleared of trees and brush and is being used as a parking and storage area. The mine and terrace are connected by a trail. The 5- by 7-ft. drift, at the time of this visit was 52 feet back into the mountain and inclined 5-30°. The bearing, starting at the portal, was N 16° E for 21 feet and N 5° W for 31 feet. The timbering extended back into the incline for 45 feet. A small rail-mounted ore car was being used to transport ore and gangue out of the mine. This was pulled out of the mine by a compressed-air-powered motor anchored to a large rock 20 feet out from the adit. The ore is moved from the mine up to the parking area by means of a short home-made tram.

Stratigraphy: Bedrocks of the region are indurated Eocene sediments of the Puget Group. In the immediate area of the mine a 15-feet andesite sill or dike is present. The fact that it contains sandstone inclusions tends to verify the belief that it is an intrusion. This unit does not

seem to extend over the anticline (the anticline will be described under structure). It is present on the east limb, but the investigator was unable to find it on the west limb. It is possible, however, that the traverse made down the river did not go far enough to find the andesite in the event that it has been displaced by a large fault which may be present in the area. On the east limb of the anticline the andesite unit may cut across the bedding. All of these things need to be checked before the name "dike" or "sill" can be applied.

Sedimentary rocks in the immediate area are sandstones with one 2-foot coaly shale bed and one 3-foot carbonaceous sandstone bed present. Overlying the Puget Group in the region is Pleistocene glacial drift.

Structure: The mine is located in and is essentially parallel with the crest of a small tightly folded N 9° W trending asymmetrical anticline. The west limb of this structure has dips as high as 80°; on the east limb, 50° is probably the maximum.

There is a fault zone along the crest of the anticline that appears to be 50 feet wide.. Some of the faults in this zone appear to have a large displacement. Because of their number no attempt was made to plot all of the faults. These small faults may be associated with a large normal east-dipping fault, which, if it exists, strikes essentially parallel with the trend of the anticline. Movement of the fault has been partially along an incompetent coaly shale bed and partially through the more competent overlying sandstones and andesite unit. The following evidence for this fault should be checked. There is an apparently undisturbed massive buff sandstone exposed in the core of the anticline. Heavy mineralization has taken place in incompetent contorted coaly shaly bed. There is an apparent displacement of beds (the west block moving up with respect to the east block), and where the fault plane leaves the coaly shale bed, the more competent sandstones and the andesite unit (?) have been brecciated. There are signs of minor faulting on the east limb of the andesite but none on the west limb. (See cross section below).

Mineralization: Ore minerals consisting of closely associated realgar, orpiment (?), and cinnabar, are confined to the black coaly shale and brecciated zones along the crest of the anticline. It is interesting to note that there is no apparent mineralization below the black coaly shale. The cinnabar occurs as pods, and veins, and is also disseminated through the shattered zone. The largest pod weighed 300 pounds, but most of them are smaller than 2 inches in diameter. The pods have been found so far only in the black coaly shale bed. The investigator found mineralized veins in both matrix material of the fault gouge and in the black shale. Willemite-screen tests for mercury made on andesite-shale and sandstone-breccia fragments show mercury to be universally present. The pods and veins are very high grade cinnabar, probably near 75% or higher.

Production: At the time of this visit three men were working the deposit. They have distilled 12 flasks of mercury and have a small stock pile of ore on the property.

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

July 3, 1957

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: Assistant Chief, Branch of Base Metals

Subject: Review of application, Docket No. DMEA 4775 (mercury), Washington Mining Corporation, Royal Reward Mine, King County, Washington. $122,000.00

The applicant proposes an extensive program to explore for mercury mineralization by drifting, crosscutting, raising, and shaft sinking at an estimated total cost of $122,000.00.

It is stated in the letter of transmittal that the Field Team has examined the property and a report is being prepared.

Under these conditions, I believe it advisable to await the Field Team's report before evaluating the proposed program.

The application is returned herewith.

Jos Pennington

J. W. Pennington

Attachment

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard, U. S. G. S.
F. D. Lamb
F i l e s

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 5 1957

DATE	INITIALS	CODE
7/5	S	220
7/5	[illegible]	400

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 5 1957

DATE	INITIALS	CODE
7-5	C	220
7/5	GRC	400

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

July 3, 1957
Re: DMEA 4775
Washington Mining Corp.
Royal Reward Mine
King County, Washington
$122,000.00 - Mercury

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance in sinking a working shaft to and exploring a 20-25 feet long mercury-bearing structure. From a 50-foot adit-drift on the structure, 5 flasks of mercury were produced. As suggested by the sampling map and section, the ore probably came from a 15-20 foot section of the drift. High grade ore appears to have been found, but it is not too apparent that the work proposed is now warranted.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

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

July 2, 1957

Washington Mining Corporation
3811dahe Street
Tacoma, Washington

Subject: DMEA-4775

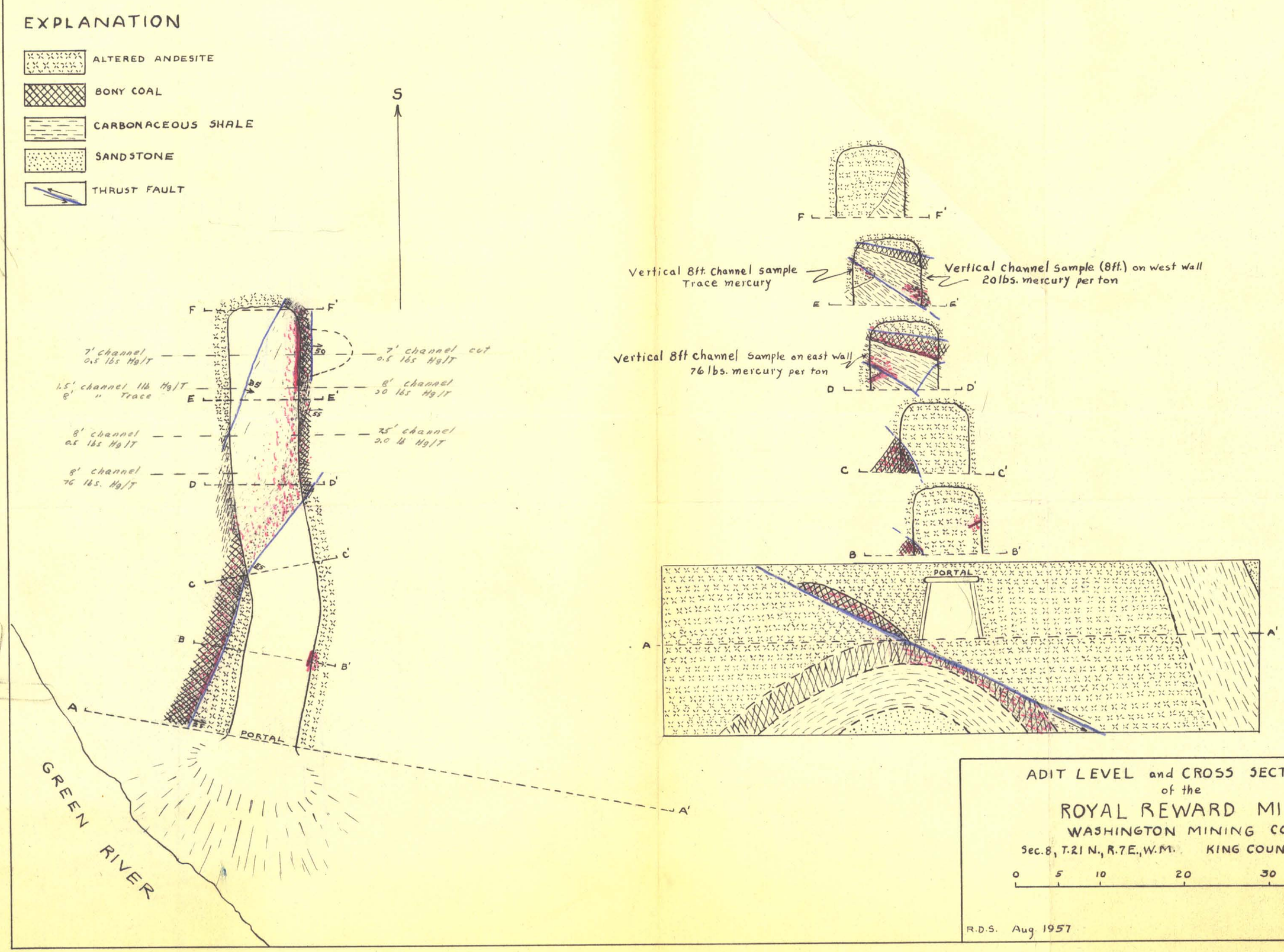
Gentlemen:

Your application for exploration assistance, dated June 24, 1957 submitted to our office at Spokane, Washington has been assigned Docket Number DMEA-4775 and referred to the Iron and Ferro Alloys 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 I N.W.



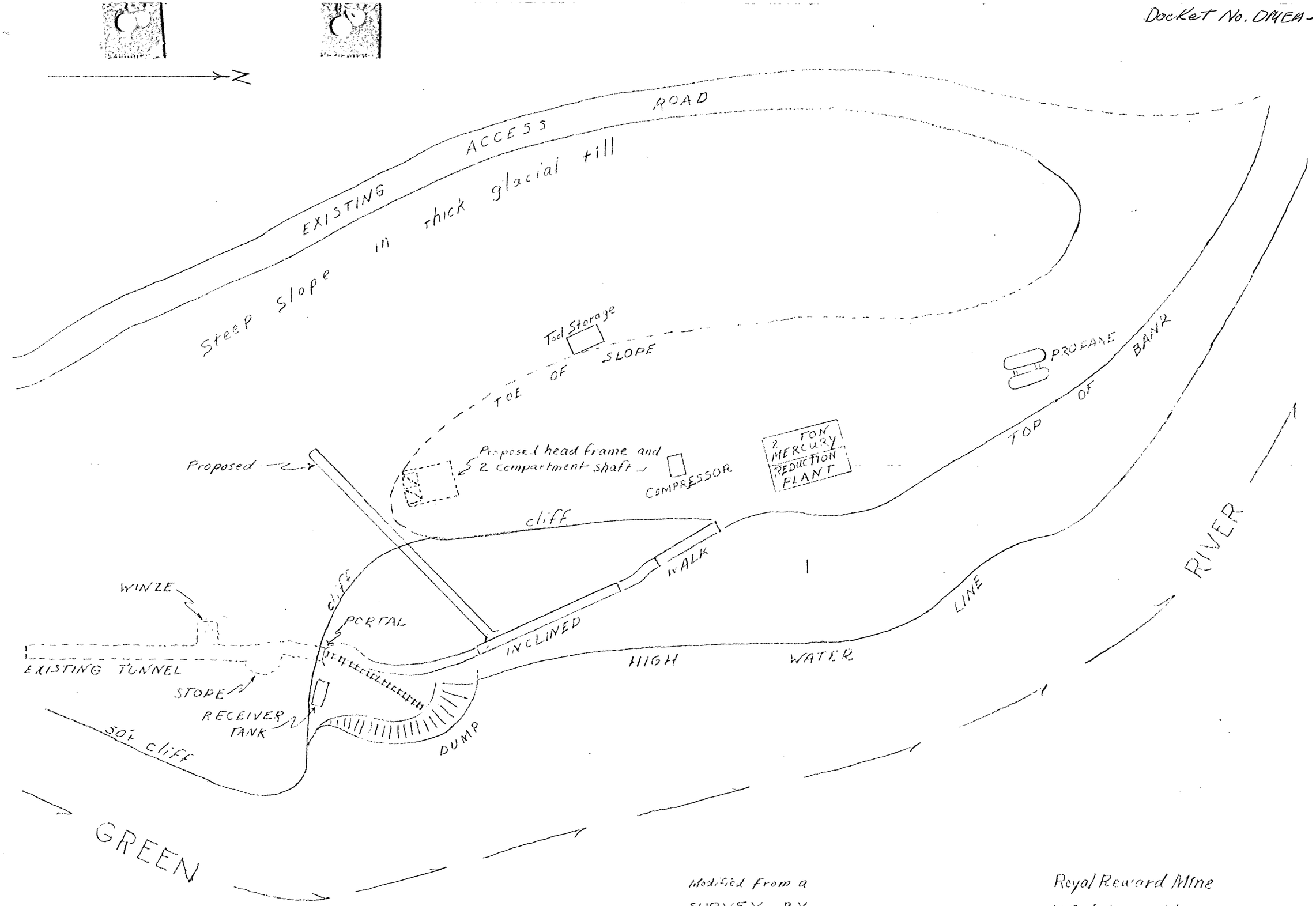
ADIT LEVEL and CROSS SECTIONS
of the
ROYAL REWARD MINE
WASHINGTON MINING CORP.
Sec. 8, T. 21 N., R. 7 E., W.M. KING COUNTY, WASH.

0 5 10 20 30 40 ft.

R.D.S. Aug. 1957

PLATE I

Docket No. DMEA-4775

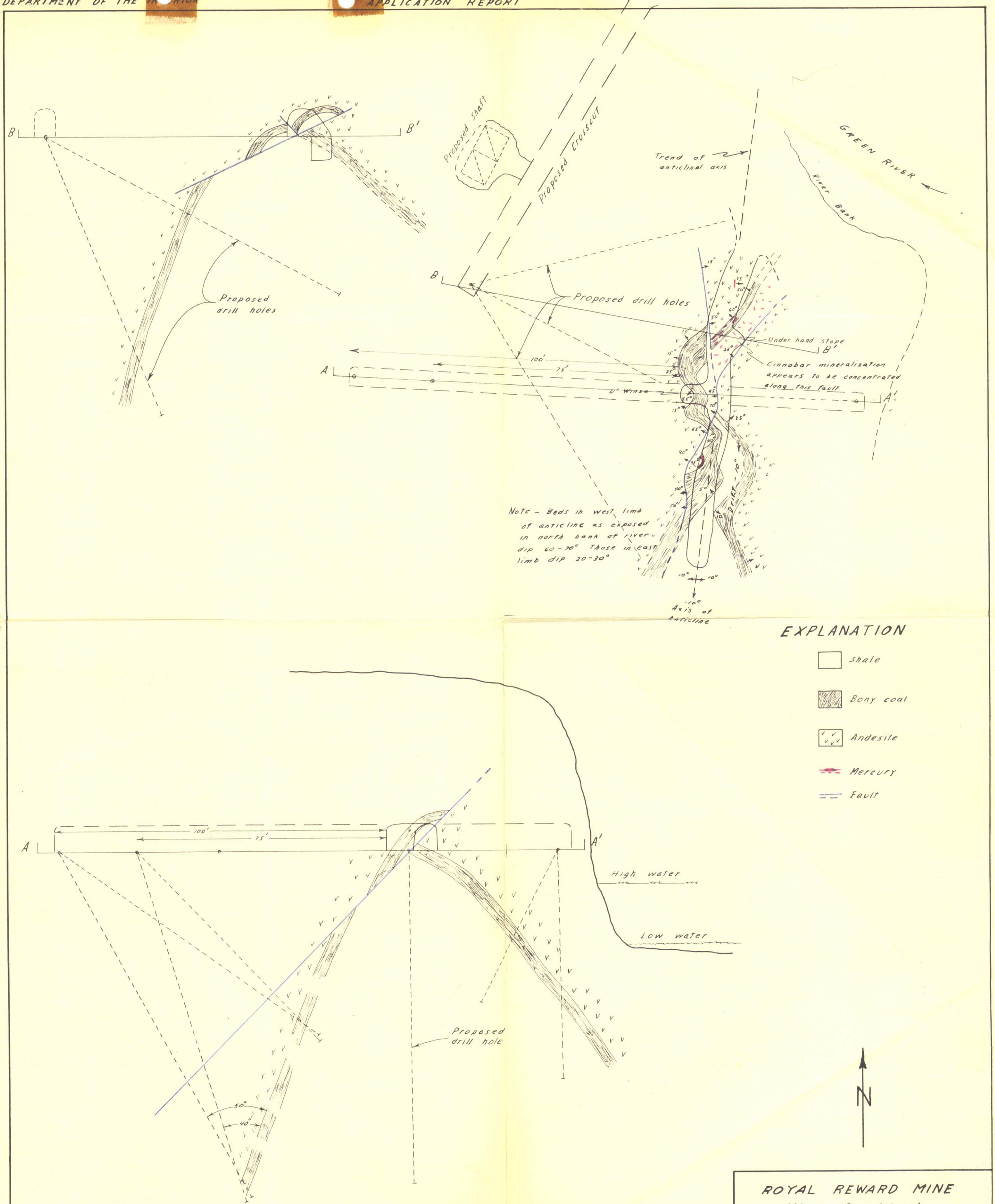


Modified from a
SURVEY BY
L.V. BERKSHIRE & R.E. LJUNGDAHL
DECEMBER 10, 1957

Royal Reward Mine
Washington Mining Corp.
King County, Washington

30 15 0 30 feet

Plate 1



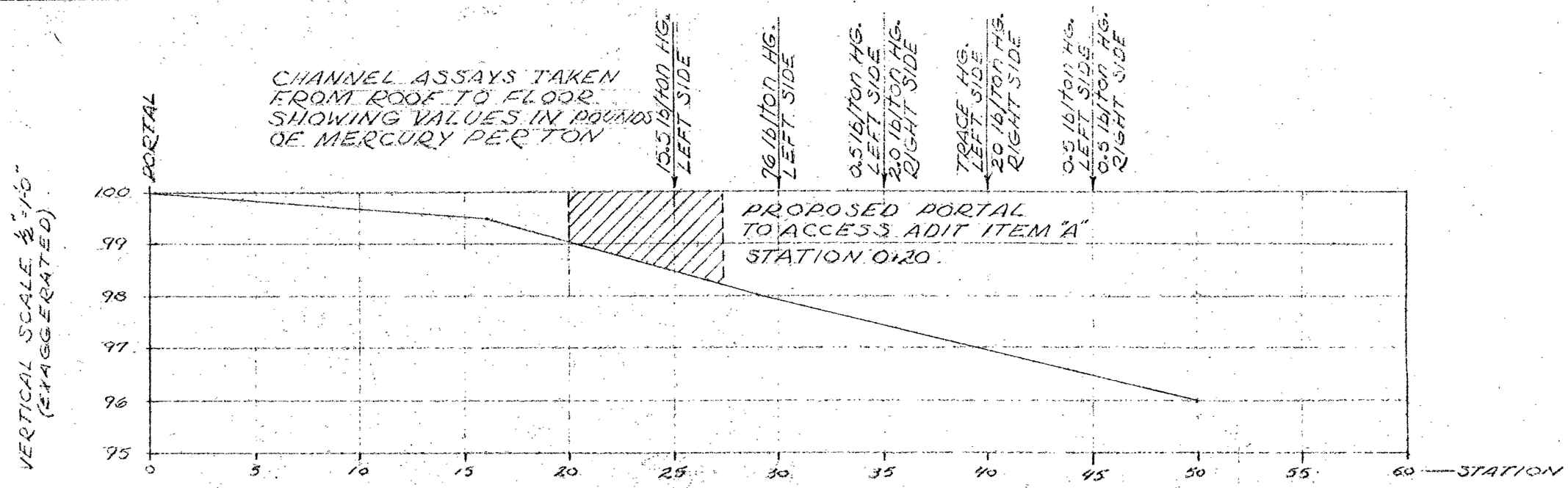
ROYAL REWARD MINE
King Co. Wash.

20 10 0 20 FEET

1-17-58

Plate 2

Compiled by A.E. Weissenborn and D.R. MacLaren.
From data supplied by R.D. Sample, E.A. Mc Gill and company geologist.



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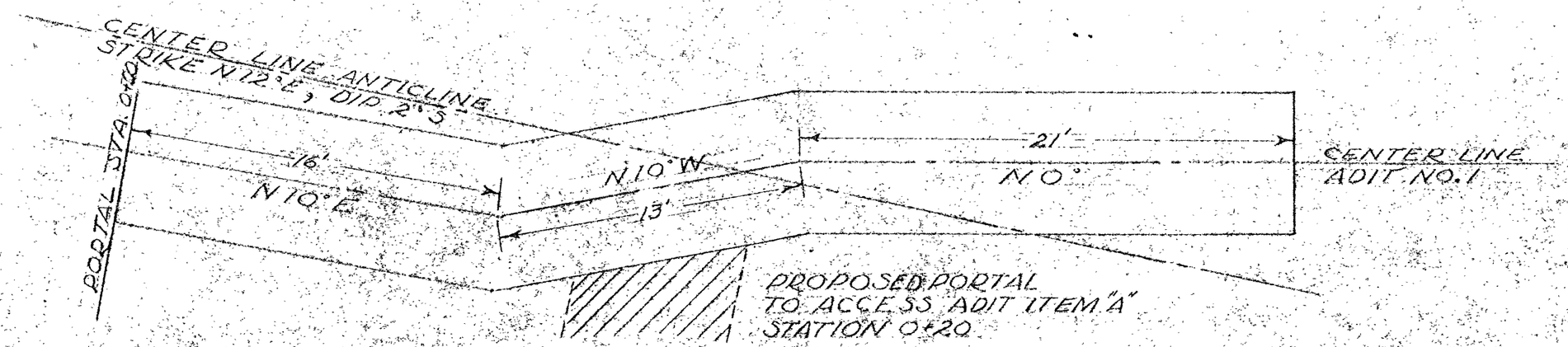
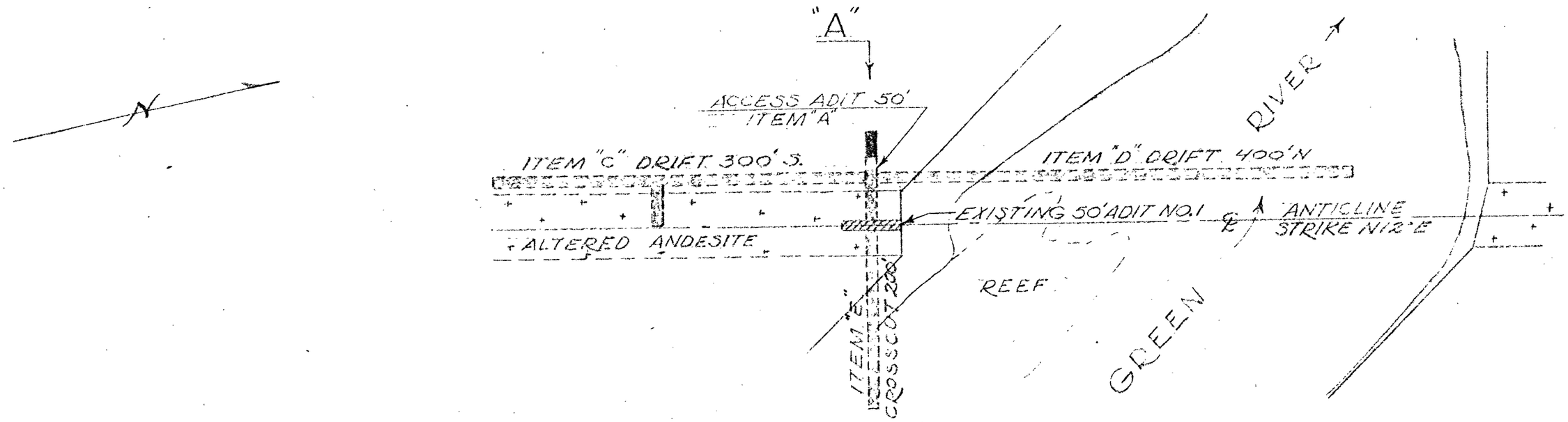
SCALE 1"=5'-0"

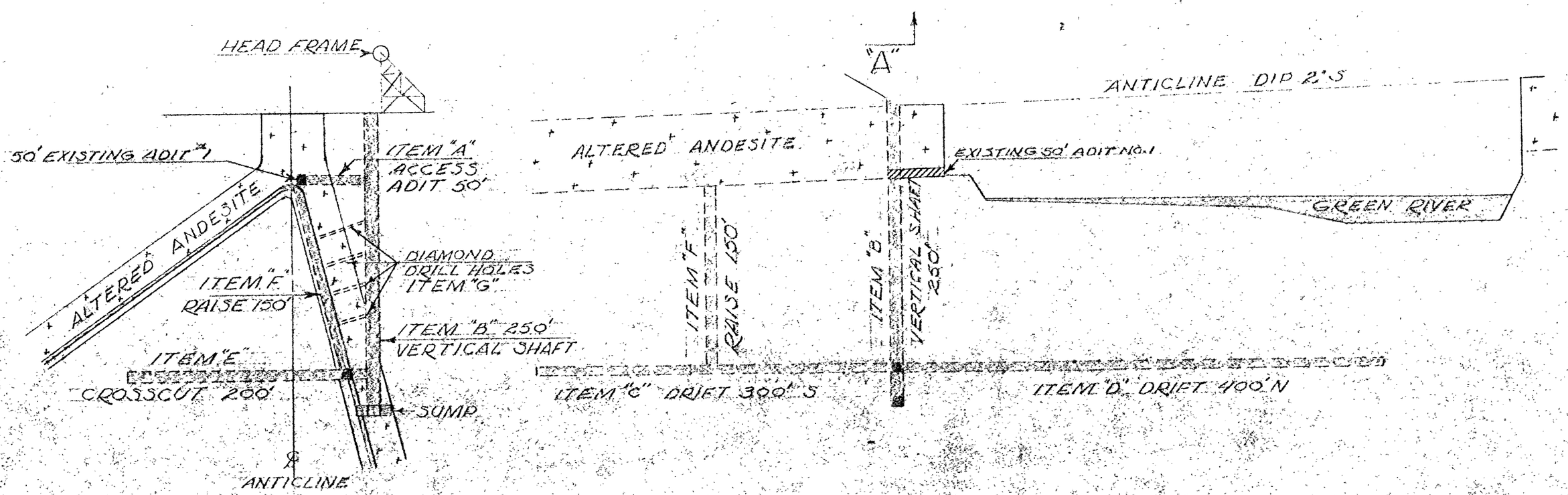


PLAN ADIT NO. 1 (EXISTING)
SCALE 1"=5'

WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

TITLE ROYAL REWARD MINE PLAN AND PROFILE ADIT NO. 1 (EXISTING)		
SCALE 1" = 5'-0"	DATE JUNE 19-57	DRAWING NO.
DRAWN R.E.L.	S. O. NO.	2B-5
CHECKED L.V.B.		

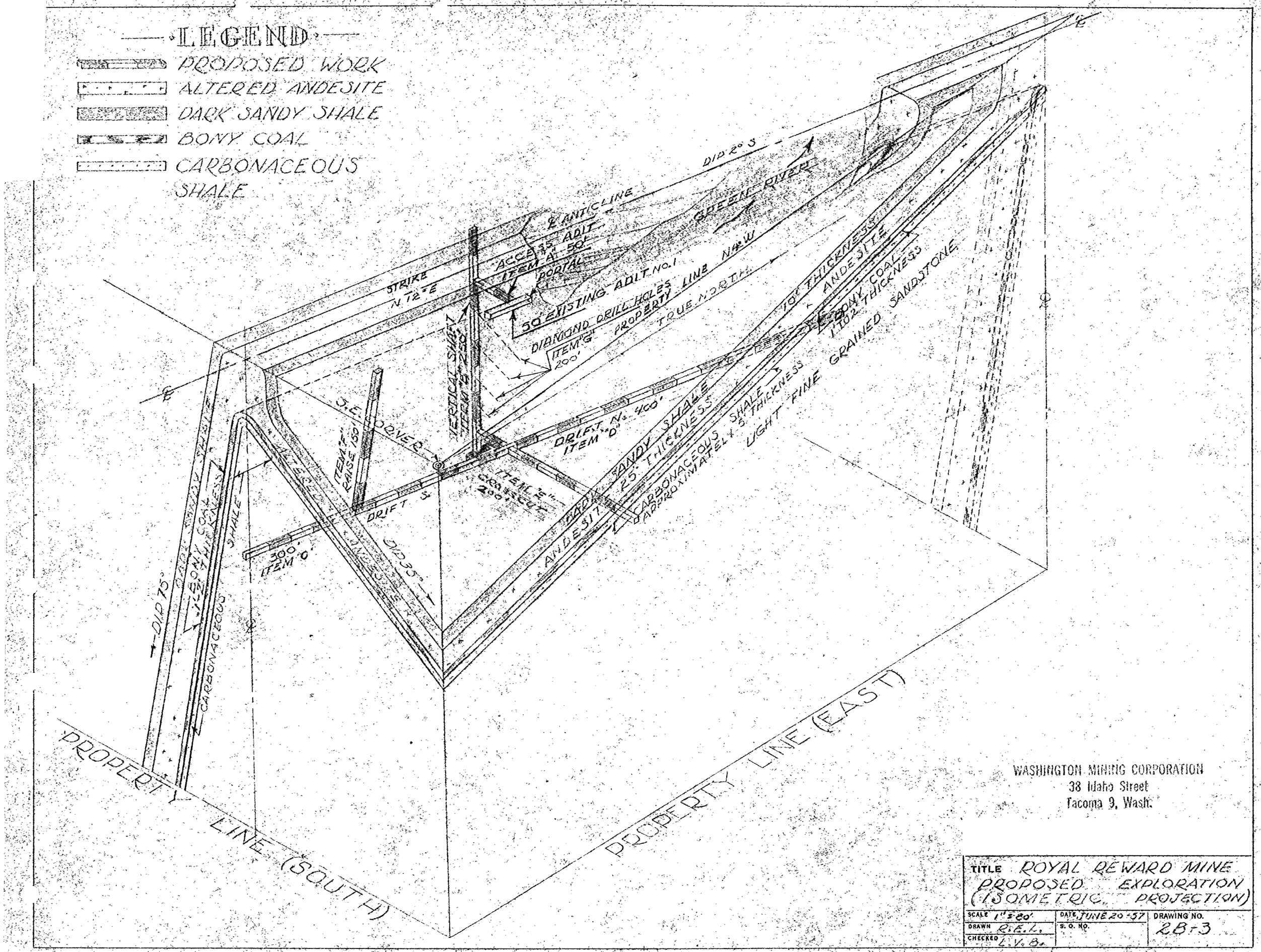




SECTION "AA"

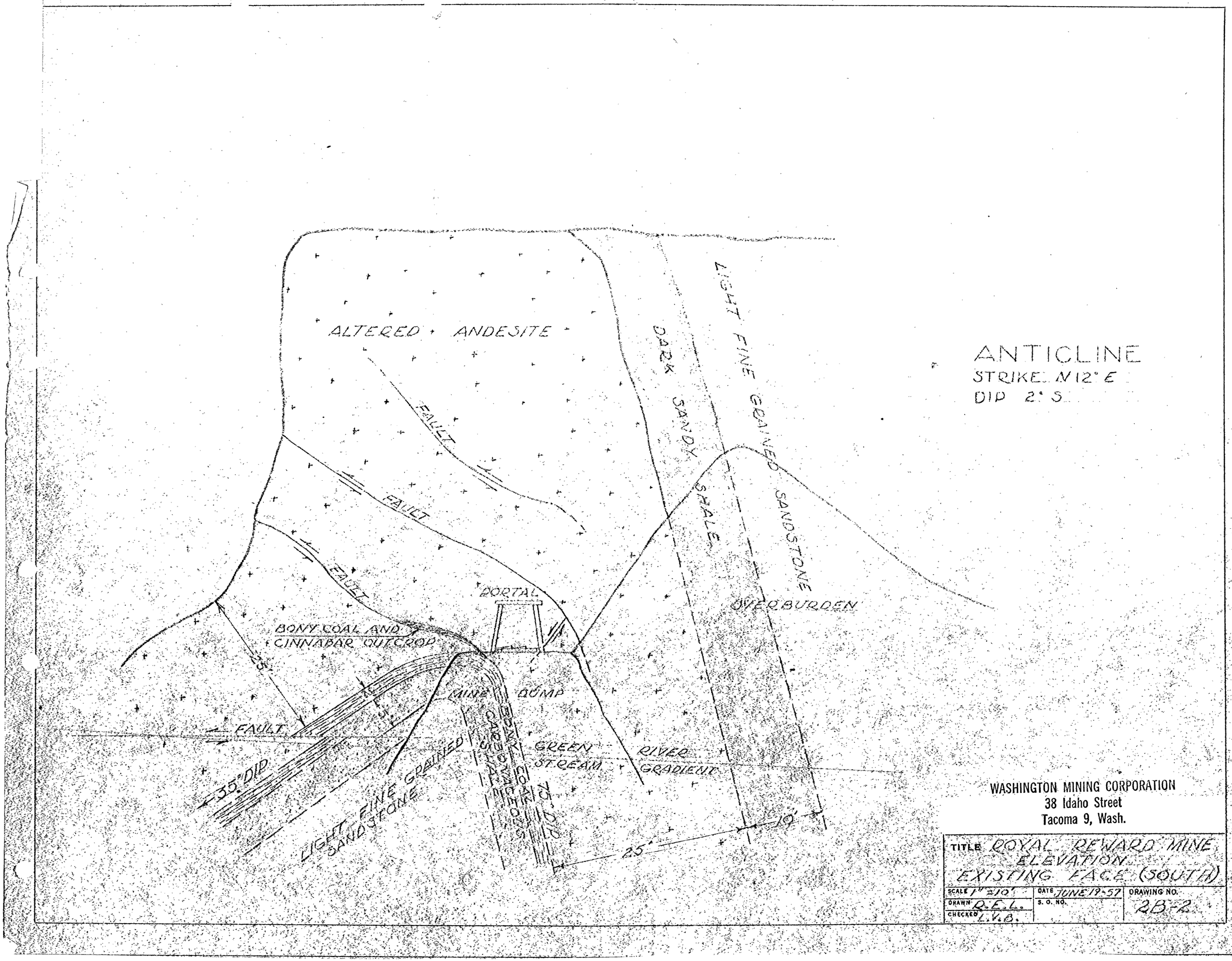
WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

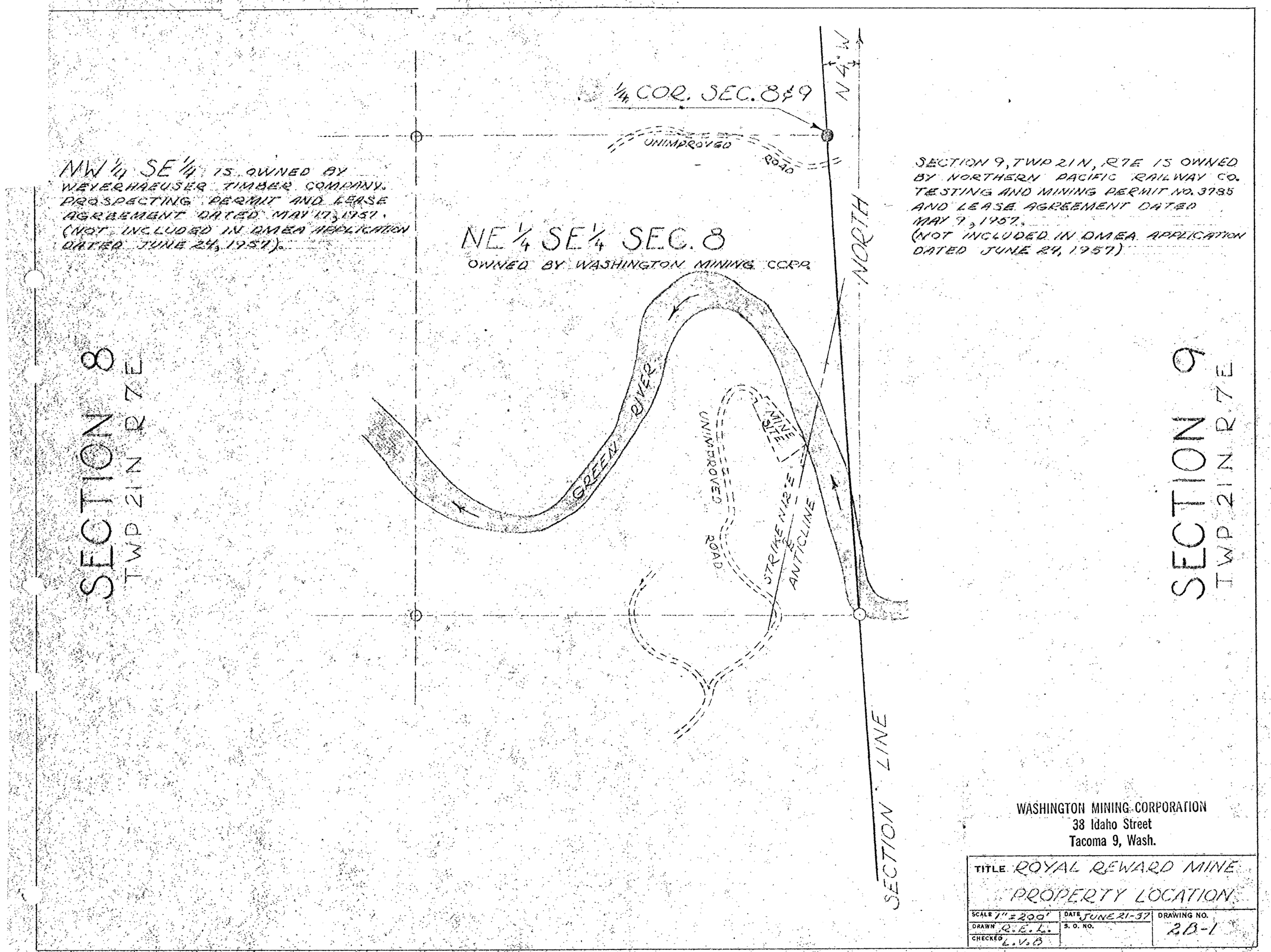
TITLE ROYAL REWARD MINE PROPOSED EXPLORATION ELEV. AND CROSS-SECTION		
SCALE 1" = 80'	DATE JUNE 18-57	DRAWING NO.
DRAWN R.E.L.	S. O. NO.	2B-4
CHECKED L.V.B.		



WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.

TITLE ROYAL REWARD MINE PROPOSED EXPLORATION (ISOMETRIC PROJECTION)		
SCALE 1" = 80'	DATE JUNE 20-57	DRAWING NO. 2B-3
DRAWN R.E.L.	S. O. NO.	
CHECKED L.V.B.		


ALTERED ANDESITE
FAULT
FAULT
FAULT
FAULT
ANTICLINE
STRIKE N12° E
DIP 2° S
LIGHT FINE GRAINED SANDSTONE
DARK SANDY SHALE
PORTAL
OVERBURDEN
BONY COAL AND CINNABAR OUTCROP
75'
MINE DUMP
FAULT
35° DIP
LIGHT FINE GRAINED SANDSTONE
DARK SANDY SHALE
GREEN STREAM
RIVER GRADIENT
25'
10'
WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.
TITLE ROYAL REWARD MINE
ELEVATION
EXISTING FACE (SOUTH)
SCALE 1" = 10'
DATE JUNE 19-57
DRAWING NO. 2B-2
DRAWN R.E.L.
S. O. NO.
CHECKED L.V.B.


NW 1/4 SE 1/4 IS OWNED BY WEYERHAEUSER TIMBER COMPANY. PROSPECTING PERMIT AND LEASE AGREEMENT DATED MAY 17, 1957. (NOT INCLUDED IN DMEA APPLICATION DATED JUNE 24, 1957).
1/4 COR. SEC. 8 & 9
N 4 1/4
UNIMPROVED ROAD
NE 1/4 SE 1/4 SEC. 8
OWNED BY WASHINGTON MINING CORP.
NORTH
SECTION 9, TWP 21 N, R 7 E IS OWNED BY NORTHERN PACIFIC RAILWAY CO. TESTING AND MINING PERMIT NO. 3785 AND LEASE AGREEMENT DATED MAY 9, 1957. (NOT INCLUDED IN DMEA APPLICATION DATED JUNE 24, 1957)
SECTION 8
TWP 21 N R 7 E
GREEN RIVER
UNIMPROVED ROAD
MINE SITE
STRIKE NE & ANTICLINE
SECTION 9
TWP 21 N R 7 E
SECTION LINE
WASHINGTON MINING CORPORATION
38 Idaho Street
Tacoma 9, Wash.
TITLE ROYAL REWARD MINE
PROPERTY LOCATION
SCALE 1" = 200'
DATE JUNE 21-57
DRAWING NO. 2B-1
DRAWN R. E. L.
S. O. NO.
CHECKED L. V. B.