DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4641

1123

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(Withdrawn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

2 1 AUG 1957

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

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

Left Side

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

Right Side

✓ Project summary 8-5-59
✓ Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

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

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

Left Side

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

Right Side

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

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

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

9775

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Alt	500
		500
8/20	Talbert	800
8/20	Selfridge	120
		~~130~~
		~~130~~
		110
		~~100~~
		~~115~~

225

AUG 20 1959

Mr. Ruth Swanson

Madras, Oregon

Re: Docket No. DMEA-4641 (Mercury)
International Engineering and
Mining Company
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-E1123

Dear Mrs. Swanson:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the above-cited contract.

This correspondence relates to the Consent to Lien and Subordination Agreement signed by you July 22, 1957, under the Defense Minerals Exploration Administration program which has now been succeeded by the Office of Minerals Exploration program.

Sincerely yours,

Acting Director

Enclosure
JWAlt/er 8-5-59
Copy to: Docket
Dir Read File
Op. Committee
Region I (2)
Chron.

Identical letters to:
Guy N. & Nola A. Wharton
Daniel C. & Virginia B. Swanson
Francis & Hilma Johnson
Thomas E. Autzen

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	ABP	500
	[illegible]	500
8/20	Talbot	800
8/20	Selfridge	190
		~~130~~
		~~130~~
		110
		~~100~~
		~~[illegible]~~

AUG 20 1959

International Engineering and Mining Company
622 Anacapa Street
Post Office Box 278
Santa Barbara, California

220
225

Re: Docket No. DMEA-4641 (Mercury)
International Engineering and
Mining Company
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-E1123

Gentlemen:

Reference is made to your completed exploration contract with the Government.

We sincerely regret that the work performed did not result in a certification of discovery or development under the provisions of the contract. In the absence of such certification, the Government retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this project. Your attention, however, is called to the provisions of the contract which require the operator to keep and preserve certain records for the period indicated.

We appreciate your interest and participation in the DMEA exploration program which has now been succeeded by the Office of Minerals Exploration program.

Sincerely yours,

Acting Director

JWAltzer 8-5-59
Copy to: Docket
Dir Read File
Op. Committee
Const. Adm & Audit Div.
Region I (2)
Mr. & Mrs. Guy W.Wharton, Dalles, Oregon
T.E. Autzen, Portland, Oregon
Mrs. Ruth Swanson, Madras, Oregon
Mr. & Mrs. Francis Johnson, Ashwood, Oregon
Mr. & Mrs. D. C. Swanson, Ashwood, Oregon
Chron.

8623

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

APR 6 1959
O.M.E.

AUDIT CERTIFICATE

I have examined the records and transactions of:

International Engineering and Mining Company
622 Anacapa Street
P. O. Box 278
Santa Barbara, California

pertaining to Exploration Project Contract No. Idm-E1123, Docket No. DMEA-4641, dated August 21, 1957, including Amendment Nos. 1 and 2, covering a project for the exploration of mercury, on property known as the Azehandle Mine, located in Jefferson County, Oregon, for the months of May, June, and July 1958.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

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

Total cost as billed by the Contractor		$13,050.12
Exceptions (See Audit Report for details)		
Prior to this audit	-0-	
During this audit	4,699.62	4,699.62
Total Accepted Cost		$8,350.50

The contract calls for a 75 percent participation of exploration expense by the United States Government. Therefore, payment to the contractor by the Government in the amount of Six Thousand Two Hundred Sixty Two and 88/100 Dollars, is valid and proper.

Amount payable to Operator	$6,262.88
Amount reimbursed	-0-
Balance due Operator	$6,262.88

Pd 4/21/59

This certificate is issued on the provision that the Regional Executive Officer, The Director, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

George Mayor
George Mayor, OME Auditor

April 2, 1959

AUDIT REPORT

I. INTRODUCTION

On March 25 and 26, 1959, a final audit (covering operations for the months of May, June, and July 1958) was made of the records and transactions pertaining to Exploration Project Contract No. Idm-E1123, Docket No. DMEA-4641, dated August 21, 1957, including Amendment Nos. 1 and 2, with the:

International Engineering and Mining Company
622 Anacapa Street
P. O. Box 278
Santa Barbara, California

covering a project for the exploration of mercury, on property known as the Axehandle Mine, located in Jefferson County, Oregon.

The Operator had a verbal agreement with Mr. John D. Hoffmann to represent them in all activities of the contract, which covered the supervision of the project and maintenance of accounting records pertaining to the cost of the contract. Mr. Hoffmann maintained his office at 520 Santa Barbara Avenue, San Luis Obispo, California and it was in his office that this audit was performed.

During the course of the audit, Mr. John D. Hoffmann, was consulted as required and his cooperation and assistance greatly facilitated the audit.

II GENERAL INFORMATION ON RECORDS

The Operator's Monthly Report and Voucher, Forms MF-104 and MF-104-A, were prepared by Mr. Hoffmann and all invoices were billed to Mr. Hoffmann and paid by him and the checks were drawn on his own bank account maintained in the Bank of America, San Luis Obispo, California. Work sheets maintained by Mr. Hoffmann, covering the cost of the project were examined during the course of the audit. Due to a misunderstanding covering the preparation of Forms MF-104 and 104A, Mr. Hoffmann showed the total cost of the project as $13,050.12, which included $4,699.62 of unallowable costs, and after discussing these costs with Mr. Hoffmann it was agreed that he would accept the allowable costs amounting to $8,350.50 as shown in this audit report, however in a letter dated March 25, 1959, from Mr. John D. Hoffmann to Mr. A. R. Weissenborn, Executive Officer, OME Field Team, Spokane, Washington, Mr. Hoffmann stated that by accepting the final costs of this audit in amount of $8,350.50, he still reserved the right to re-open his claim, should he find some constructive information in his favor pertaining to the 262 feet of churn drilling disallowed by the Field Team.

Mr. Hoffmann had attached to his final MF-104 and 104A for the month of July 1958, a statement of his account with the International Engineering and Mining Company which showed the amount due him as follows:

Total Costs (detailed)	$15,131.02
Plus 10% Overhead	1,513.10
	$16,644.12
Plus 10% Profit	1,664.41
Total	$18,308.53

Mr. Hoffmann furnished 5 additional copies of this statement, certifying on each copy that it was true and correct. These 5 statements will be affixed to the original and 4 copies of the MF-104 and 104A in the Spokane Office. This signed certificate was not on the copies of the statement previously submitted, and the statement was not considered as part of this audit, as it was submitted by Mr. Hoffmann for information purposes only.

III SCOPE OF AUDIT AND FINDINGS

The audit consisted of a complete analysis of all expenditures, in order to ascertain the accuracy, propriety and validity of the costs as shown in the "Totals to Date" column of Form MF-104, Operator's Monthly Report and Voucher, for the month of July 1958. The extent of the audit and the findings under each of the "Items of Cost" follows:

(1) Independent Contracts $6,116.10

All charges under this category were verified to copies of churn drilling invoices, drilling reports, bulldozing invoices, cancelled bank checks and contract terms. The costs covering Independent contracts are accounted for as follows:

	Claimed	Disallowed	Allowable
Churn Drilling	$ 5,520.00	$ 903.90	$4,616.10
Bulldozing	4,598.12	3,098.12	1,500.00
Totals	$10,118.12	$4,002.02	$6,116.10

Churn Drilling

The contract allowed 1600 feet of churn drilling at $3.45 per foot, at a maximum cost of $5,520.00 and the Operator entered into an agreement dated June 18, 1957 with Bert Abrams, Madras, Oregon to perform the 1600 feet of churn drilling at $3.45 per foot for a total cost of $5,520.00. The holes drilled by the Operator are as follows:

New Strike P-15-B and No. 2 Shaft Area

Hole No.	Claimed	Allowed
5	102 ft.	None
6	125 ft.	125 ft.
7	125 ft.	125 ft.
8	125 ft.	125 ft.
9	60 ft.	None
10	125 ft.	125 ft.
11	150 ft.	125 ft.
12	125 ft.	125 ft.
Totals	937 ft.	750 ft.

No. 1 Shaft Area

Hole No.	Claimed	Allowed
1	75 ft.	75 ft.
2	150 ft.	150 ft.
15	138 ft.	138 ft.
Totals	363 ft.	363 ft.

Dead End Shaft Area

Hole No.	Claimed	Allowed
3	75 ft.	75 ft.
13	75 ft.	75 ft.
14	150 ft.	75 ft.
Totals	300 ft.	225 ft.

	Claimed	Allowed
Totals--All Holes	1600 ft.	1338 ft.

The total churn drilling footage disallowed was 262 feet at $3.45 per foot, amounting to $903.90. The 262 feet of churn drilling disallowed can be identified as follows:

New Strike P-15-B and No. 2 Shaft Area

Hole No.	Claimed	Allowed
5	102 ft.	None
9	60 ft.	None
11	150 ft.	125 ft.
Totals	312 ft.	125 ft.

Dead End Shaft Area

Hole No.	Claimed	Allowed
14	150 ft.	75 ft.
Totals - All Holes	462 ft.	200 ft.

Net Disallowance 262 feet

In the New Strike P-15-15 and No. 2 Shaft Area the contract called for drilling 6 holes at a maximum depth of 125 feet. The Operator drilled 8 holes and holes No. 5 and No. 9 were disallowed, and hole No. 11 exceeded the maximum allowable depth by 25 feet.

In the Dead End Shaft Area the contract allowed a maximum depth of 75 feet for each hole, and hole No. 14 exceeded the maximum depth by 75 feet.

The 262 feet disallowed was in conformity with Field Team reports.

Bulldozing

The contract showed an estimate for bulldozing of 100 hours at $15.00 per hour or a total estimated cost of $1,500.00. The work to be performed by a D-8 Bulldozer or equivalent. The Operator was unable to rent a bulldozer in the area and it was necessary to rent a TD-18 bulldozer at $1,000.00 per month from Howard Cooper Corporation, Portland, Oregon, and the cost of bulldozing is accounted for as follows:

Rental of 1 used International Crawler Tractor S/N TDR 6149 w/dozer, drum and canopy from April 26, 1958 to June 17, 1958 at $1,000.00 per month less adjustment for lost time due to repairs	$1,503.60
Cost of shipping dozer by flat-bed truck from Portland, Ore., to Ashwood, Ore., and return	378.21
Purchased 1 Allied Tote Tooth for dozer	230.00
Wages of dozer operator 4/23/58 to 6/17/58	1,287.68
Payroll taxes and insurance	116.40
Diesel Oil, Lub. and miscellaneous costs	1,082.23
Total cost for bulldozing	$4,598.12
Less: Bulldozing costs allowed	1,500.00
Excess Bulldozing costs disallowed	$3,098.12

The total cost of bulldozing in amount of $4,598.12 represented 288 hours the bulldozer was in use at an average hourly rate of $15.95, which was far in excess of the contract estimate of 100 hours at $15.00 per hour or a total of $1,500.00, therefore it was considered that the amount of $1,500.00 was reasonable as an allowable cost of the contract and the amount of $3,098.12 was disallowed.

The Field Team agreed that the TD bulldozer used by the Operator was equivalent to a D-8 bulldozer as specified in the contract.

(1) Fixed Unit Costs $2,140.80

The fixed unit costs are accounted for as follows:

	Claimed	Disallowed	Allowable
Incidental allowance for each foot of drilling completed	$2,560.00	$ 419.20	$2,140.80

The contract showed an allowable maximum of 1600 feet at $1.60 per foot of drill holes amounting to $2,560.00. In view of the 262 feet of churn drilling disallowed the same disallowed footage applies to incidental allowances, therefore 262 feet at $1.60 per foot in amount of $419.20 is disallowed, which leaves the acceptable costs at $2,140.80

(7) Miscellenous $ 93.60

An examination was made of invoices and cancelled bank checks covering charges to miscellenous costs, which are accounted for as follows:

	Claimed	Disallowed	Allowable
Sampling and Analysis	$ 28.00	$ -0-	$ 28.00
Drying Samples	344.00	278.40	65.60
Totals	$ 372.00	$ 278.40	$ 93.60

The Operator charged the entire amount of $372.00 to Sampling and Analysis based on the following costs:

Lumber for approximately 300 core boxes for samples	$ 309.38
Labor making core boxes	45.00
Abbot A. Banks Inv. 7/9/58	
7 Mercury determinations at $4.00 ea.	28.00
Total	$ 382.38
Less: Undertermined amount	10.38
Total Sampling and Analysis	$ 372.00

Of the $372.00 charged by the Operator $278.40 was disallowed, and after this deduction the acceptable costs amounted to $93.60 based on fixed unit costs as set forth in the contract and accounted for as follows:

	Units	Rate	Amount
Sampling and Analysis	7	$4.00	$28.00
Drying Samples	41	1.60	65.60
Total Acceptable Costs			$93.60

core boxes for churn drilling!

The above units of Sampling and Analysis and Drying Samples are in conformity with the Field Team reports, and agreed to by the Operator.

IV CONCLUSIONS

The audit disclosed that all costs charged to this project, with the exception of the disallowances aggregating $4,699.12, as itemized in the preceding section of this report, are reasonable and proper under the terms of the contract.

The audit also disclosed that the status as of July 31, 1958, of "allowable maximums" under the contract was as follows:

	Allowable Maximum	Acceptable Cost	Balance
Churn Drilling	$5,520.00	$4,616.10	$ 903.90
Incidental Allowance	2,560.00	2,140.80	419.20
Sampling and Analysis	600.00	28.00	578.00
Drying Samples	240.00	65.60	174.40

The adjustments between Items of Cost, as shown on the July 1958 Form MF-104, the disallowances, and the accepted costs, are summarized as follows:

		Totals July MF-104	Distribution Corrected	Disallowed by Audit	Accepted Costs
(1)	Independent Contracts				
	Churn Drilling	$5,520.00	$5,520.00	$ 903.90	$4,616.10
	Bulldozing	4,598.12	4,598.12	3,098.12	1,500.00
(1)	Fixed Unit Costs				
	Incidental Allowance	2,560.00	2,560.00	419.20	2,140.80
(7)	Miscellaneous				
	Sampling and Analysis	372.00	28.00	-0-	28.00
	Drying Samples		344.00	278.40	65.60
	Totals	$13,050.12	$13,050.12	$4,699.62	$8,350.50

At the conclusion of the audit, the findings were discussed with Mr. John D. Hoffmann, who represents the Operator, and Mr. Hoffmann agreed to the final acceptable costs, totaling $8,350.50, however he did reserve the right to review the 262 feet of churn drilling disallowed, which has already been discussed under Section II General Information on Records in this audit report.

George Mavor

George Mavor, ~~CRE~~ Auditor

April 2, 1959

GOVERNMENT COPY

ORIGINAL FILE COPY
DMEA
RECEIVED 7
DATE

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMEA-4641

AMENDMENT NO. 2

It is agreed this 21st day of April 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and the International Engineering and Mining Company, a partnership comprised of Frank Sylvester, E. L. Cleveland, P. L. Schneider, and E. L. Sylvester, that Exploration Project Contract No. Idm-E1123, (Docket No. DMEA-4641), dated August 21, 1957, as amended, is further amended as follows:

In Article 3 of the contract the date specified for commencing work is extended from April 1, 1958 (Amendment No. 1), to on or before May 15, 1958, and work shall be completed within thirteen months from the date of the contract.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, or the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

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

INTERNATIONAL ENGINEERING AND MINING CO.

Frank Sylvester (Partner)
FRANK SYLVESTER

E. L. Sylvester (Partner)
E. L. SYLVESTER

P. L. Schneider (Partner)
P. L. SCHNEIDER

E. L. Cleveland (Partner)
E. L. CLEVELAND

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMEA-4641

Justification for Amendment No. 2

Because of extremely heavy rains and general bad weather conditions, it was impossible for the Operator to commence work by April 1, 1958. Mr. Frank Sylvester, partner, requested by telephone near the end of March that an amendment be prepared extending the starting date to May 15, 1958.

RM 6 REFERENCE SLIP

56 DEFENSE MINERALS EXPLORATION ADMINISTRATION

TO:	INITIALS	DATE
1. 400	esf	3/24
2.		
3.		
4.		
5.		
FROM: George C. Saltford		

FOR: Check items for action desired

____ Action ____ Reply for signature of _____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions ____ Your information

REMARKS:

For clearance.

O.K. by Rubin

GCS

INT.-DUP. SEC., WASH., D.C. M25803

Government copy

DMEA
RECEIVED MAR 24
DATE

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMEA-4641

AMENDMENT NO. 1

It is agreed this 19th day of February 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and the International Engineering and Mining Company, a partnership comprised of Frank Sylvester, E. L. Cleveland, P. L. Schneider, and E. L. Sylvester, that Exploration Project Contract No. Idm-E1123 (Docket No. DMEA-4641), dated August 21, 1957, is amended as follows:

In Article 3 of the contract the date specified for commencing work is extended from February 15, 1958, to on or before ~~March 15,~~ 1958, and the period for completion of the work is extended to thirteen months from the date of the contract.

1 Apr 1958 WGA

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, or the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Wing G. Agnew
Wing G. Agnew
Acting Executive Officer
DMEA Field Team, Region I

INTERNATIONAL ENGINEERING AND MINING CO.

Frank Sylvester (Partner)
FRANK SYLVESTER

E. L. Sylvester (Partner)
E. L. SYLVESTER

P. L. Schneider (Partner)
P. L. SCHNEIDER

E. L. Cleveland (Partner)
E. L. CLEVELAND

Amend. #1

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMEA-4641

Justification for Amendment No. 1

The Operator requests, because of a storm in the area of the Axehandle mine, that the date of commencing the work be extended from February 15, 1958, to March 1, 1958. Because of the possibility of continued stormy conditions and the impracticability of commencing work under such conditions, the date of commencing work under the project should be extended from February 15, 1958, to March 15, 1958.

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 6 1957

DATE	INITIALS	CODE
MF-200 (Revised June 1954)		

Government's Copy

Docket No. DMEA 4641

Commodity Mercury

Contract No. Idm-E 1123

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this 21 AUG 1957 day of ....., 195..., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] International Engineering and Mining Company, a partnership comprised of Frank Sylvester, E. L. Cleveland, P. L. Schneider and E. L. Sylvester, whose mailing address is 622 Anacapa Street, P. O. Box 278 Santa Barbara, California, hereinafter called the "Operator," as follows:

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

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

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

(b) The Operator represents and undertakes that:

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

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

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

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

of the land (lessor, seller, optionor, etc.), are attached, as follows: Consent to Lien and Subordination Agreement of lessors

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Mercury. The work to be performed is described in Exhibit "A." The Operator on or before 15 Feb 1958 shall commence the work, and on or before 1 yr. from date of Contract (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A"~~ See Annex II.

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $10,420.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $7,815.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

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

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

Subcategory (c)—Labor.

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article ~~8~~ 8. See Annex II.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—
See Annex II.

Corbin
Sherman
Hopkins
Martin
~~Thomas~~
Chamberlin
Selfridge

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
ACTING Administrator, Defense Minerals
Exploration Administration

INTERNATIONAL ENGINEERING AND MINING CO.

~~XXXXXX~~
Frank Sylvester (partner)
By FRANK SYLVESTER

E. L. Sylvester (partner)
E. L. SYLVESTER

P. L. Schneider (partner)
P. L. SCHNEIDER

E. L. Cleveland (partner)
E. L. CLEVELAND

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

.....

[CORPORATE SEAL]

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

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

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator Intl. Eng.& Mining Co.
Docket No. DMEA- 4641
Contract No. Idm-E 1123
Contract Date 21 AUG 1957

RECEIVED DEC 6 1957 D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Jefferson, State of Oregon, described ~~as follows~~: 2/
in an agreement dated October 15, 1956, between the undersigned and International Engineering and Supply Co., a partnership, recorded in Book 3, page 225, record of mines of said county, assigned to the International Engineering and Mining Co., by an instrument dated November 13, 1956.

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

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

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

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

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

None

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

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

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

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

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

Dated this 22nd day of July, 1957.

Ruth Swanson Ruth Swanson	[Seal]	Madras, Oregon	[Address]
Guy N. Wharton Guy N. Wharton	[Seal]	600 W 8th The Dalles Ore	[Address]
Nola A. Wharton Nola A. Wharton	[Seal]	600 W 8th The Dalles Ore	[Address]
Daniel G. Swanson Daniel G. Swanson	[Seal]	Ashwood, Oregon	[Address]
Virginia B. Swanson Virginia B. Swanson	[Seal]	Ashwood, Oregon	[Address]
Francis Johnson Francis Johnson	[Seal]	Ashwood, Ore	[Address]

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

_____
[Corporate Seal]

Hilma Johnson Hilma Johnson	[Seal]	Ashwood, Oregon	[Address]
Thomas E. Autzen Thomas E. Autzen	[Seal]	P.O. Box 2525 Portland, Or.	[Address]
Ruth Swanson Ruth Swanson, Administratrix of the estate of L. C. Swanson, deceased	[Seal]	Madras, Oregon	[Address]

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 6 1957

DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMEA 4641

ANNEX I

The land referred to in Article 2 of the Contract is described as follows:

South half of northwest quarter and

All that part of the northwest quarter of northwest quarter of Section 35, Township 9 south, range 17 E.W.M. lying south of the premises known and named as the Red Jacket Mine and being about 25.02 acres of land in said northwest quarter of Section 35.

The west half of the southwest quarter of Section 35 and that part of SE$\frac{1}{4}$ of NE$\frac{1}{4}$ of Section 34, Township 9 south, range 17 E.W.M. lying north of Randolph Gulch and containing 30 acres, more or less;

East half of southeast quarter of Section 34; and

A certain lode mining claim, Notice of Location of which was filed by Lavey C. Swanson, said mining claim being known as the Better Chance, and said Notice having been filed September 20, 1937, which claim, according to the description contained in the Notice is as follows:

Commencing at a post marked **northeast** corner at the **northeast** corner, which is approximately 846 feet in a southerly direction from the northeast corner of Section 34, Township 9 south, range 17 E.W.M. from thence 300 feet in a southerly direction to the east center end post marked

east center end; thence 300 feet in a southerly direction to a corner post marked southeast; thence 1400 feet in a westerly direction to the southwest corner post marked southwest corner; thence 300 feet in a northerly direction to the west center end post marked "West Center End"; thence 300 feet in a northerly direction to a corner post marked "Northwest"; thence 1500 feet in an easterly direction to the place of beginning;

all in Jefferson County, Oregon.

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 6 1957

DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING & MINING CO.
DOCKET NO. DMEA-4641

ANNEX II

Article 13. Changes and added provisions--

(a) In Article 3 the words following the references to Article 10 are deleted and the following words are substituted "shall have completed the work."

(b) In Article 6(a) that part of the last sentence in the first paragraph beginning after the semicolon is deleted.

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

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

(e) In Article 6(c), the words "Article 9" are changed to "Article 8."

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

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 6 1957

DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMEA-4641

EXHIBIT "A"

Description of the work

The approximate locations of the proposed work are shown on the map entitled, "Geologic Map of the Axe Handle Mine Area, Horse Heaven District, T. 9 S., R. 17 E., W. M. Jefferson County, Oregon," attached hereto and made a part hereof.

The work is as follows:

1. With a D-8 bulldozer or equivalent perform the following work:

(a) Strip along an area approximately 1,000 feet in length and a maximum width of 50 feet to extend the known limits of the alteration zone in the New Strike, P-15-B and No. 2 shaft area, and excavate trenches across mineralized zones at points approved by the Government.

(b) Strip along the altered contact zone in the vicinity of the Dead End shaft collar for a distance of approximately 300 feet and to an approximate average depth of 5 feet on the uphill side, and excavate trenches across the mineralized zones at points approved by the Government.

(c) Prepare churn drill sites and roads to the drill sites.

2. In the New Strike, P-15-B and No. 2 shaft area, churn drill a maximum of 6 vertical holes each to a maximum depth of 125 feet, or not to exceed a total of 750 feet of churn drilling.

3. In the No. 1 shaft area, churn drill 4 holes; two to a depth of 150 feet each and two to a depth of 125 feet each, or a total of 550 feet of churn drilling.

4. In the Dead End shaft area, churn drill a maximum of 4 holes each to a maximum depth of 75 feet, or not to exceed a total of 300 feet.

The locations, directions, inclinations, and extents of all work are subject to the approval of the Government.

Churn drill holes shall be not less than 6 inches in diameter and shall be cased as necessary.

Mineralized sections of all work shall be sampled and assayed for mercury by Government approved methods.

Estimated Costs of the Project

Actual Costs

Category (1) Independent Contracts

(a) Bulldozing

Trenching and stripping	75 hours	
Mobilization	16 hours	
Preparation of drill sites and roads to drill sites	9 hours	
Total	100 hours @ $15.00/hr.	$1,500.00

(b) Churn drilling

1,600 feet of 6-inch holes @ $3.45/ft.	5,520.00

Fixed Unit Costs (See Annex II)

Chemical analyses, 150 samples @ $4.00/ea.	600.00
Drying samples, 150 samples @ $1.60/ea.	240.00
Incidental allowance 1/ for each foot of drilling completed	
1,600 feet @ $1.60/ft. of drill holes	2,560.00

Estimated Total Cost of Project	$10,420.00
Government Participation @ 75%	$ 7,815.00

1/ Includes all costs that might otherwise be allowable costs of the project under Categories (1) through (7) of Article 6(a), except as otherwise scheduled in Exhibit "A".

MF-205
(Combines and supercedes MF-2[illegible] and MF-203)
June 1956

For Government's Use Only
EXPLO[illegible]ION PROJECT CONTRACT
Operator_____
Docket No. DMEA-_____
Contract No. Idm-E_____
Contract Date_____

Enclosure # 4.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

RECEIVED FEB 15 1957 D.M.E.A.

To the United States of America:

Referring to that certain land in the County of Jefferson, State of Oregon, described ~~as follows:~~ 2/

~~In contract Option to lease or purchase ASHMANDLE MINE~~ by International Engineering and Supply Company from Ruth Swanson et-al, recorded 15 Oct 1956.

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

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

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

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

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

NONE

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

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated 15 October 1956, and recorded in Book 3, Page 225, official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space. Record of mines.

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

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

7. Added provision: - - - - - - - - - - - - (State "None" or "See Annex No. 1 ")

Dated this 18 day of December, 1956

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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

_____

[Corporate Seal]

ANNEX # 1.

I certify that I am a partner-owner in the above described Property and invested with Power of Attorney to act for same.

Signed

Daniel G. Swanson.

I certify that this is a true copy

Frank S. Sylvester

Frank S. Sylvester
President
International Engineering & Mining Co.

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 FEB 15 1957

DATE	INITIALS	CODE
2/19	WSM	400

February 4, 1957

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

Re: New application (Mercury)
International Engineering & Mining Co.
Axehandle Mine
Jefferson County, Oregon

Dear Mr. Selfridge:

Enclosed are three copies of an application for aid to explore for mercury in Jefferson County, Oregon. We have retained one copy for our files.

This property is described by A. C. Waters, R. E. Brown, et al., in U. S. Geol. Survey Bull. 969e, Quicksilver Deposits of the Horse Heaven mining district, 1951, and in a confidential report by Randall E. Brown, January 1, 1943. In both reports the writers appear to regard rather favorably the possibility of exploring the property by bulldozing. Apparently, very little additional geologic information will be required.

The applicant proposes to explore on the property of the Axehandle mine by trenching, diamond drilling, and drifting at an estimated cost of $75,925.30. We do not know, however, exactly what the applicant proposes to do as the applicant's Enclosure No. 5, which refers to past production and presumably describes the program, appears to have been omitted from the application. Without this information we obviously are unable to evaluate or comment upon the application. We are not requesting this of the applicant because in your letter of December 12, 1955, you instructed us not to request additional information from the applicant.

Sincerely yours,

A. E. Weissenborn

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

Enclosures
cc: USBM(2)
Alvord

INTERNATIONAL ENGINEERING & MINING CO.

MINE HEADQUARTERS, ASHWOOD, OREGON
POST OFFICE BOX 278 / SANTA BARBARA / CALIFORNIA
Cable Address: INEMCO

President
FRANK SYLVESTER
Executive Vice-President
E. L. CLEVELAND
Vice-President
P. L. SCHNEIDER
Secretary-Treasurer
E. L. SYLVESTER

MAIN OFFICE
Santa Barbara, Calif.
WOodland 5-1615
WOodland 9-7603

BRANCH OFFICE
106 W. Wyoming Ave.
Las Vegas, Nevada

December 31, 1956

OFFICIAL FILE COPY
D M E A
RECEIVED FEB 15 1957

DATE	INITIALS	CODE
2/13	WSM	400

United States Department of the Interior
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

Attention: Mr. A. E. Weissenborn
Executive Officer, DMEA
Field Team Region 1 N.W. District

Gentlemen:

Please find enclosed five (5) copies of form MF 103 (Revised April 1952) and eleven (11) enclosures relative to same.

We trust that the exploratory project as outlined is comprehensive and justifies recommendation for inspection by your joint Field Team.

Upon approval of method and extent of exploratory program, specifications will be prepared and bids requested from qualified and acceptable subcontractors to obtain a minimum cost in accordance with your operational procedure and best interests of the project.

Your earliest consideration for the primary survey will expedite the work starting in time to complete the project during the calender year of 1957.

Please address all correspondence to Box #16 Ashwood, Jefferson County, Oregon. Attention Mr. P. L. Schneider who has full authority to act in this matter.

Respectfully submitted

Frank S. Sylvester

By: Frank S. Sylvester, President

International Engineering & Mining Co.

RECEIVED
JAN 17 1957
U. S. G. S.
SPOKANE, WASH.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

JAN 17 1957
U. S. G. S.
SPOKANE, WASH.

RECEIVED
FEB 15 1957
D.M.E.A.

Not to be filled in by applicant

Docket No. 4641
Metal or Mineral Mercury
Date Received 2-15-57
Estimated Cost $15,925.30
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: International Engineering and Mining Company.
Business Address, 622 Anacapa St. P.O. Box 278, Santa Barbara, California.
Mine Address, P.O. Box 16, Ashwood, Jefferson County, Oregon.
Business is a partnership, see names as listed on legal publication, Enclosure #1.

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Physical- Mineral rights on 320.40 Acres.
Legal; See attached photostats of legal descrpition in option to lease or purchase, Recorded October 15, 1956, Madras, Oregon, Vol. 3, page 225, book of mines, see Enclosure #2.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Hold option to lease or purchase, same to be activated prior to Government contract approval, Enl. #3.

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it None. See verification of Consent to lien and Subordinate Agreement, Form MF-205, Enclosure # 4.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. One (1) Millsite claim only. See legal description, Enclosure # 2.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. See Enclosure # 5 & 11 part 2.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. See Enclosure #5.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. See enclosures # 6 & 7. (Do not return) and #6, & Bulletin #969, Plates 36 & 37, Geo. Survey, Dept. of Interior.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. See enclosure # 8.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.
See enclosure # 8.

16—66551-1

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Mercury.

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc. See enclosure # 5.

(*c*) The work will start within 15 days and be completed within 8 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. See enclosure # 9.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project: Encl. # 10.

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.). See enclosure # 10.

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants. See enclosure # 10.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. See enclosure # 10.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be. See enclosure # 10.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project. See enclosure # 10.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project. Encl. # 10.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes. See enclosure # 10.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above. See Encl. # 10.

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

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

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

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

Explain in detail on acompanying paper. See enclosure # 11.

CERTIFICATION

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

Dated December 31, 1956

International Engineering and Mining Company
(Applicant)

By Frank S. Sylvester
Frank S. Sylvester

Phil Schneider
Phil Schneider

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

INTERNATIONAL ENGINEERING & MINING CO.

MINE HEADQUARTERS, ASHWOOD, OREGON

POST OFFICE BOX 278 / SANTA BARBARA / CALIFORNIA

Cable Address: INEMCO

President
FRANK SYLVESTER

Executive Vice-President
E. L. CLEVELAND

Vice-President
P. L. SCHNEIDER

Secretary-Treasurer
E. L. SYLVESTER

MAIN OFFICE
Santa Barbara, Calif.
WOodland 5-1615
WOodland 9-7603

BRANCH OFFICE
106 W. Wyoming Ave.
Las Vegas, Nevada

Enclosure # 1.
International Engineering & Mining Co.
P.O. Box 278, Santa Barbara, Calif.

RECEIVED FEB 15 1957 D.M.E.A.

B-12 Santa Barbara News-Press, Wednesday Evening, December 5, 1956

~~Legal Advertisement~~

NOTICE TO CREDITORS TO FILE OR PRESENT THEIR CLAIMS

No. 53890

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA BARBARA

the Matter of the Estate of CATH-RINE FEELEY, also known as ATE FEELEY, Deceased.

e undersigned, County National and Trust Company of Santa ra, Administrator of the Estate herine Feeley, also known as Feeley, deceased, hereby gives to the creditors of said de- hat all persons having claims said decedent are required months after the first pub- this notice to file them necessary vouchers in the he Clerk of the Superior e State of California, in County of Santa Barbara, them with the necessary he said administrator at business, to-wit: 1000 in the City of Santa ty of Santa Barbara, rnia, the same being as its place for the he business of the edent.

Barbara, California,

TIONAL BANK COMPANY OF BARA,
r of the Estate of eley, also known y, Deceased.
BURGH,
rator.
on: November
, 28, D5—7713

SET
ION FOR
LL

T OF THE
IN AND
SANTA

of MAR-
ed.
t Mon-
r, 1956,
y and
at the
Santa
Santa
s the
Will
and
uth
of

k.

Legal Advertisement

CERTIFICATE OF BUSINESS UNDER FICTITIOUS NAME

The undersigned do hereby certify that they are conducting a mining business as a limited partnership at 622 Anacapa Street, Santa Barbara, California, under the fictitious name of International Engineering and Mining Co., and that said firm is composed of the following persons, whose names and places of residence are as follows, to wit:

General Partners:

Frank Sylvester, 1510 Miramar Beach, Santa Barbara, California; E. L. Cleveland, 106 Wyoming Avenue, Las Vegas, Nevada; P. L. Schneider, 1510 Miramar Beach, Santa Barbara, California; E. L. Sylvester, 1510 Miramar Beach, Santa Barbara, California.

Limited Partners:

Kellogg Beach, 1409 School House Road, Santa Barbara, California; A. J. Jimenez, 1309 Blanchard Street, Santa Barbara, California; Virgil C. Jones, 2018 Oak Avenue, Santa Barbara, California.

Witness our hands this 13 day of November, 1956.

FRANK SYLVESTER
E. L. SYLVESTER
P. L. SCHNEIDER
E. L. CLEVELAND
General Partners
KELLOGG BEACH
A. J. JIMENEZ
VIRGIL C. JONES
Limited Partners

STATE OF CALIFORNIA)
County of Santa Barbara) ss.

On November 13, 1956, before me, the undersigned, a Notary Public in and for said County and State, personally appeared Frank Sylvester, Kellogg Beach, A. J. Jimenez, and Virgil C. Jones known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

BARBARA J. REOM
(SEAL) Notary Public in and for said County and State. My commission expires: November 28, 1958

STATE OF CALIFORNIA)
County of Santa Barbara) ss.

On November 30, 1956, before me, the undersigned, a Notary Public in and for said County and State, personally appeared E. L. Cleveland, P. L. Schneider, E. L. Sylvester, known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

Witness my hand and official seal.

BARBARA J. REOM
(SEAL) Notary Public in and for said County and State. My commission expires: November 28, 1958.

D5, 12, 19, 26—7796

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned, INTERNATIONAL ENGINEERING & SUPPLY CO., a co-partnership, consisting of Frank Sylvester, E. L. Cleveland, P. L. Schneider and E. L. Sylvester, does hereby assign unto INTERNATIONAL ENGINEERING AND MINING CO., a California limited partnership, consisting of Frank Sylvester, E. L. Cleveland, P. L. Schneider and E. L. Sylvester, general partners, and Kellogg Beach, A. J. Jimenez and Virgil C. Jones, limited partners, all of its right, title and interest in, to and under that certain written agreement dated October 15, 1956, by and between Ruth Swanson, a widow and Ruth Swanson, administratrix of the estate of L. C. Swanson, deceased, Guy N. Wharton, Nola A. Wharton, his wife, Daniel C. Swanson and Virginia B. Swanson, his wife, Francis Johnson and Hilma Johnson, his wife, and Thomas E. Autsen, a single man, first parties, and International Engineering & Supply Co., a co-partnership, consisting of Frank Sylvester, E. L. Cleveland, P. L. Schneider and E. L. Sylvester, second party, covering the following described real property:

South half of Northwest quarter

All that part of the Northwest quarter of Northwest quarter of Section 35, Township 9 South, Range 17 E. M. M. lying south of the premises known and named as the Red Jacket Mine and being about 25.02 acres of land in said Northwest quarter of Section 35.

The West half of the Southwest quarter of Section 35 and that part of SE 1/4 of NE 1/4 of Section 34, Township 9 South, Range 17 E. M. M. lying North of Randolph Gulch and containing 36 acres, more or less;

East half of Southeast quarter of Section 34; and

A certain lode mining claim, Notice of Location of which was filed by Lavoy C. Swanson, said mining

claim being known as the Better Chance, and said Notice having been filed 9/20/37, which claim, according to the description contained in the Notice is as follows:

Commencing at a post marked Northwest corner at the Northwest corner, which is approximately 846 feet in a southerly direction from the Northeast corner of Section 34, Township 9 South, Range 17 E.W.M. from thence 300 feet in a southerly direction to the East center end post marked East Center End; thence 300 feet in a southerly direction to a corner post marked Southeast; thence 1400 feet in a westerly direction to the southwest corner post marked Southwest corner; thence 300 feet in a northerly direction to the West center end post marked West Center End; thence 300 feet in a northerly direction to a corner post marked Northwest; thence 1500 feet in an easterly direction to the place of beginning;

all in Jefferson County, Oregon.

Dated: November 13, 1956.

INTERNATIONAL ENGINEERING & SUPPLY CO.

By FRANK SYLVESTER
Frank Sylvester

By E. L. CLEVELAND
E. L. Cleveland

By P. L. SCHNEIDER
P. L. Schneider

By E. L. SYLVESTER
E. L. Sylvester

Being all of the partners

The undersigned, INTERNATIONAL ENGINEERING AND MINING CO., a California limited partnership, does hereby accept the foregoing assignment and hereby assumes and agrees to perform all of the terms, covenants and conditions of the above described agreement of October 15, 1956.

Dated: November 13, 1956.

INTERNATIONAL ENGINEERING AND MINING CO.

By FRANK SYLVESTER
Frank Sylvester

By E. L. CLEVELAND
E. L. Cleveland

By P. L. SCHNEIDER
P. L. Schneider

By E. L. SYLVESTER
E. L. Sylvester

Being all of the general partners

THIS IS TO CERTIFY THAT THIS A TRUE COPY OF ASSIGNMENT DATED NOVEMBER 13, 1956.

Frank S. Sylvester
Frank S. Sylvester

Subscribed and sworn to before me this
10th January 57
Theodora R. Moriniski
in and for

Enclosure # 2.
International Engineering & Mining Co.
P.O. Box 278, Santa Barbara, Calif.

THIS AGREEMENT, Made and entered into on this 15th day of October, 1956, by and between Ruth Swanson, a widow and Ruth Swanson, administratrix of the estate of L. C. Swanson, deceased, Guy N. Wharton, Nola A. Wharton, his wife, Daniel C. Swanson and Virginia B. Swanson, his wife, Francis Johnson and Hilma Johnson, his wife, and Thomas E. Autzen, a single man, herein called the First Party, and INTERNATIONAL ENGINEERING & SUPPLY CO., a co-partnership, consisting of Frank Sylvester, E. L. Cleveland, P. L. Schneider and E. L. Sylvester, herein called the Second Party, WITNESSETH:

WHEREAS the First Party is the owner of all of the mines and mineral rights on and of certain lode mining claims described as follows:

South half of Northwest quarter,

All that part of the Northwest quarter of Northwest quarter of Section 35, Township 9 South, Range 17 E.W.M. lying south of the premises known and named as the Red Jacket Mine and being about 25.02 acres of land in said Northwest quarter of Section 35.

The West half of the Southwest quarter of Section 35 and that part of SE¼ of NE¼ of Section 34, Township 9 South, Range 17 E.W.M. lying North of Randolph Gulch and containing 30 acres, more or less;

East half of Southeast quarter of Section 34; and

A certain lode mining claim, Notice of Location of which was filed by Lavoy C. Swanson, said mining claim being known as the Better Chance, and said Notice having been filed 9/20/37, which claim, according to the description contained in the Notice is as follows:

Commencing at a post marked Northwest corner at the Northwest corner, which is approximately 846 feet in a southerly direction from the Northeast corner of Section 34, Township 9 South, Range 17 E.W.M. from thence 300 feet in a southerly direction to the East center end post marked East Center End; thence 300 feet in a southerly direction to a corner post marked Southeast; thence 1400 feet in a westerly direction to the southwest corner post marked Southwest corner; thence 300 feet in a northerly direction to the West center end post marked West Center End; thence 300 feet in a northerly direction to a corner post marked Northwest; thence 1500 feet in an easterly direction to the place of beginning;

all in Jefferson County, Oregon; and

WHEREAS the proper development of the ore bodies in said premises both present and in expectancy and the proper reduction and development and treatment thereof will necessitate the outlay of moneys; and

WHEREAS the second party is willing to furnish the money for such development work, but only under and in accordance with the terms and subject to the conditions hereinafter set forth;

NOW, THEREFOR, and in consideration of $1.00 paid by the second party, receipt of which is hereby acknowledged, and in consideration of the mutual covenants

RECEIVED FEB 7 1957 D.M.E.

of the parties being each to the other made, and herein contained, the parties do hereby agree as follows:

1. First party grants to the second party for ~~three~~ (4) Four months from the date hereof an option on the terms and conditions in this agreement hereinafter set forth to receive a mining lease in the form annexed and hereby referred to and made a part hereof of the above mineral properties, provided, however, that if requested the first party may, but shall not be required to extend this option for an additional 60 days to commence at the expiration of said ~~three~~ (4) Four month period.

2. That at anytime during the period of said option or extension if granted the second party shall have the right to enter into and take exclusive possession of all and singular the above described property and may as consideration for said option prospect and explore, test, develop and work same at its own discretion and its own proper charge and expense, said land for cinnabar and other minerals, provided, however, that all work done and all improvements made by second party on said property or any part thereof under the terms hereof during the period of said option or extension shall be done in a miner like manner and properly to enable said premises and all thereof to be carefully operated so that the cinnabar and other minerals contained therein may be extracted in an economical and miner like manner. The said second party agrees to enter upon the said premises and commence the prospecting and exploring thereof on or before 30 days hereafter and to continue the same during the period of this option or extension thereof.

3. All equipment, tools and machinery and personal property of every nature and description brought and placed upon said premises by second party for use in said work shall not become a fixture but shall remain the propery of second party and subject to removal by second party in the event second party shall not exercise said option, it shall be entitled to remove all of said equipment, tools, machinery and personal property within 30 days from the expiration of the said option.

4. During the period of this option the said second party agrees to pay to the first party, on or before the 10th day of each month, an amount equal to 10% of the gross value of all quicksilver or other metals which may be produced from said premises and sold during the preceeding month, less freight, flaskage and selling charges on account of quicksilver, and payment is to be made to the account of Daniel C. Swanson, trustee, at the United States National Bank, Madras, Oregon, and all payments so made shall be accompanied by a detailed statement of production from said premises.

5. If, at or before the expiration of said period of 120 days, or said extended period if granted, the second party shall elect to exercise the above mentioned option and receive a mining lease to said premises as hereinabove provided it shall so notify the first party and it shall on such notice be entitled to receive, in accordance with and subject to the terms of this contract, a lease in the form of the lease attached hereto and by reference made a part hereof and First Party hereby agrees on such notice to make, execute and deliver such lease to the Second Party.

6. In the event second party shall not elect to exercise said option it shall peaceably surrender and turn over said property to the first party in as good condition as they are now, reasonable wear and tear excepted, and free of any and all liens and encumbrances incurred by the second party in its operation on and about the same; in the event the said second party does not elect to exercise said option it will place the said premises in a condition where the same will not be a menace to man or beast by filling in any excavations.

7. Said second party, during its possession of said property and all thereof agrees to protect said property and all thereof against all liens and liabilities arising out of the acts of second party on said property and to permit the first party to place and maintain such notices thereon as shall be lawfully necessary to protect said party against such claims; the second party further agrees to comply with all laws and regulations relative to the protection of labor; to carry workmen's compensation as provided by the Workmen's Compensation Act of the State of Oregon, and to pay all premiums thereon; further second party shall pay any and all payments becoming due by reason of the laws of Oregon relative to unemployment payments and the second party further agrees to hold harmless the first party against any and all claims for damages or injuries to workmen in its employ at said property or any other person or persons; it is further agreed that during the possession of said property by second party under said option the second party will permit the first party or any of them to go upon the said property to represent first party and observe the performance by second party of each and all of the terms of this agreement.

The parties of the first part do hereby invest power of attorney in Daniel

C. Swanson, for the purposes of administration and operational procedure of their combined and separate interests in the said property and are in full accord that all royalties and moneys payable to first party will be deposited to Daniel C. Swanson, trustee, for lessors in the United States Bank at Madras, Oregon.

IN WITNESS WHEREOF THE parties hereto have hereunto set their hands and seals the day and year first above written.

Ruth Swanson
Ruth Swanson admx. of Estate of L. C. Swanson
Guy M Wharton
Nola A Wharton
Daniel C Swanson
Thomas E. Swanson
Hilma Johnson
Francis Johnson
Virginia B Swanson

First Parties

INTERNATIONAL ENGINEERING & SUPPLY CO.

P. J. Schweitzer
E. L. Sylvester

Second Party

STATE OF OREGON } ss. 057906
County of Jefferson }

Ruth Swanson, et al
to
International Engineering & Supply Co.

I certify that the within instrument was received for record on the 15 day of October, A. D. 19 56 at 2:00 o'clock P M., and recorded in book 3 on page 225 Record of Mines of said County.

Witness my hand and seal of County affixed.

Nellie Watts
County Clerk.

By Margie Pedinson
Deputy.

Enclosure # 3.
International Engineering & Mining Co.
P.O. Box 278, Santa Barbara, Calif.

THIS MINING LEASE, Made and entered into this _____ day of _____, 19_____, by and between Ruth Swanson, a widow, and Ruth Swanson, administratrix of the estate of L. C. Swanson, deceased, Guy N. Wharton and Nola Wharton, his wife, Daniel C. Swanson and Virginia B. Swanson, his wife, Francis Johnson and Hilma Johnson, his wife, and Thomas E. Autzen, a single man, herein called the Lessors, and INTERNATIONAL ENGINEERING & SUPPLY CO., a co-partnership, consisting of Frank Sylvester, E. L. Cleveland, P. L. Schneider and E. L. Sylvester, herein called the Lessee, WITNESSETH:

That for and in consideration of the rents and royalties hereinafter provided, which the said lessee covenants and agrees to pay so long as this lease remains in effect, and in further consideration of the covenants and agreements hereinafter mentioned to be kept and performed by the lessee, its successors and assigns, lessors have demised and leased to lessee the right and privilege of mining for and taking quicksilver (cinnabar) and other minerals of value that can be removed in the process of mining and milling from the lands hereafter described, situated in Jefferson County, Oregon, to-wit:

South half of Northwest quarter

All that part of the Northwest quarter of Northwest quarter of Section 35, Township 9 South, Range 17 E.W.M. lying south of premises known and named as the Red Jacket Mine and being about 25.02 acres of land in said Northwest quarter of Section 35;

The west half of the Southwest quarter of Section 35 and that part of SE¼ of NE¼ of Section 34, Township 9 South, Range 17 E.W.M. lying North of Randolph Gulch and containing 30 acres, more or less.

East half of Southeast quarter of Section 34; and

A certain lode mining claim, Notice of Location of which was filed by Lavoy C. Swanson, said mining claim being known as the Better Chance and said Notice having been filed 9/20/37, which claim, according to the descriptions contained in the Notice is as follows:

Commencing at a post marked Northeast corner at the Northeast corner which is approximately 846 feet in a southerly direction from the Northeast corner of Section 34, Township 9 South, Range 17 from thence 300 feet in a southerly direction to the East center end post marked East Center End; thence 300 feet in a southerly direction to a corner post marked Southeast; thence 1500 feet in a Westerly direction to the Southwest corner post marked Southwest corner; thence 300 feet in a Northerly direction to the West center end post marked West Center End; thence 300 feet in a northerly direction to a corner post marked Northwest; thence 1500 feet in an easterly direction to the place of beginning.

together with the right to use so much of the surface thereof as may be reasonably required in the exercise of the rights and privileges herein granted, reserving, however, to lessors, their heirs and assigns;

1. The right at all times during the life of this lease to go upon the said premises and every part thereof for the purpose of inspecting the same and the books of account and records of mineral workings therein and of ascertaining whether or not lessee and those holding thereunder by and from it are carrying out the terms and agreements of this lease.

To Have and to Hold the above described premises unto the lessee its successors and assigns for the period of ten years commencing on the date hereof and as long thereafter as from said premises cinnabar or other minerals are being produced in paying quantities, and the minimum monthly royalty is paid as consideration therefor.

The lessee agrees that commencing on the date of this lease the said lessee shall expend and perform work and labor and will construct mining facilities and installations on said premises to the value of at least $1000.00 per month each and every month to and including July, 1957, but if the lessee so elects, in lieu of such monthly work, labor, construction and installation it may pay the sum of $600.00 per month, payment to be made on the 5th day of each succeeding month and until the month of August 1957. Commencing in the month of August, 1957, as a minimum and advance royalty and without relation to the amount of cinnabar and other minerals of value mined from said premises the lessee shall each month thereafter pay to the lessors during the continuance of this lease, the minimum sum of $600.00 per month, to be paid monthly in advance, and all payments shall be made to the Unites States National Bank, Madras, Oregon, to the account of Daniel C. Swanson, trustee, and payments so made shall relieve lessee of any duty to see to the application of said payment among the lessors above named.

In the event the said lessee shall not extract from said premises said minimum during each month of the term of this lease it is nevertheless understood that the above sums of money are royalties for the months stated and are due and payable to the lessors whether quicksilver (cinnabar) or other minerals of value are mined or not during such month, but such minimum advance royalty shall be credited upon the first royalty due as hereinafter provided for minerals actually produced from said premises and sold or milled during the month for which such minimum monthly royalty was paid.

Lessee covenants and agrees that during the continuance of this lease lessee will fully comply with all of the provisions, terms and conditions of all laws, either

state or federal and orders issued thereunder which may be in effect during the continuance hereof relating to the operation of lessee under this lease.

The lessees shall mine and extract from said demised premises cinnabar and other minerals that can be extracted in the process of mining and milling so as to procure the greatest net return of all ore mined.

Lessors reserve as royalty, and lessee agrees to pay to lessor on or before the 10th day of each month hereafter an amount equal to 10% of the gross value of all quicksilver or other metals which have been or may hereafter be produced from said premises and sold during the preceeding month, less freight, flaskage, and selling charges on account of quicksilver, payment to made to United States National Bank, Madras, Oregon, to the account of Daniel C. Swanson, trustee.

On or before the 10th day of each month during the term of this lease lessee shall make a sworn report to lessors in which shall be entered and set down the exact amount of quicksilver and other minerals of value mined on said premises during the preceeding calendar month, and such report shall be made whether or not quicksilver or other minerals are mined during the month for which the report is made.

The said lessee further agrees to hold the lessors harmless from any and all manner of claims arising or to arise from the operation of said leased premises by lessee from any and all causes of whatsoever nature.

In the event this lease shall terminate by forfeiture, surrender or the expiration of the term the lessee may, subject to the provisions hereof, remove all equipment or improvements from said premises within six months from the termination of this lease and such removal shall be accomplished without any waste or damage to said premises and any improvements left on the premises after said period shall be the property of lessors without compensation.

All conditions, covenants and agreements of this lease shall be binding upon the heirs, assigns and successors of lessee.

The said lessee, before commencing work under the provisions of this lease or subleasing or subcontracting any of the work shall procure Workmen's Compensation Insurance as required by the laws of the State of Oregon and shall at all times keep such compensation insurance in full force and effect and furnish the lessors with premium receipts or other evidence of compliance with the requirements and further the said lessee shall at all times during the continuance of this lease comply with

all of the laws of the State of Oregon relative to the safety of workmen and will pay all unemployment insurance required by law, giving to lessors proper and sufficient evidence of such payment.

It is agreed that if for any reason the lessee shall fail to keep each and every one of the covenants herein and such default continue for a period of 30 days after written notice thereof upon lessee by lessors, the lessors shall have the right to declare this lease forfeit and enter upon the said leased premises or any part thereof either with or without process of law and expel and remove the said lessee or any person occupying the premises, using such force as may be necessary to do so. In the event of the termination of this lease by reason of the breach of the covenants herein contained, the lessee shall surrender and peaceably deliver up to the lessors the above premises and such premises shall be in good mining condition, and if upon termination of this lease for any reason, either by surrender, forfeiture or termination of the term or otherwise lessee shall have not fully performed the terms of this lease the lessors may retain possession of the property, improvements and equipment of lessees as security of lessors for rents and royalties due lessors or to protect them against liens or indemnities, loss or damages sustained by reason of any fault of lessee.

Lessee shall pay all taxes lawfully assessed on lessee's property located on the premises above described.

This lease may be surrendered by the lessee at the expiration of any lease month upon one months notice in writing to lessors of lessee's intention to surrender and upon payment of all rents and royalties payable to lessors and the performance of all obligations required herein to the end of such lease month.

It is further agreed that in consideration of the foregoing lease and the keeping by lessee of all covenants and agreements herein contained on lessee's part to be kept and performed the said lessee shall have the right to purchase within the term of this lease the leased property for the sum of $250,000.00; but in the event the said lessee shall, prior to August 1, 1956, pay on account of the purchase price of the leased property the sum of $30,000.00 then it shall have the right to purchase said leased property for the sum of $150,000.00, within the term of this lease and the said $30,000.00 theretofore paid shall be applied on account of the purchase price and in any event any purchase price shall be reduced to the extent of all rents and royalties theretofor paid.

It is further understood and agreed between the parties hereto that in the event this lease is terminated for any purposes the said lessee shall immediately execute and deliver to lessors a quitclaim deed covering the above premises and rights.

It is further understood that the parties of the first part do hereby invest a power of attorney in Daniel C. Swanson for the purposes of administration and operational procedures of their undivided and separate interests in the said property and that they will and each of them is in full accord that all royalties and moneys earned or paid will be deposited to the account of Daniel C. Swanson, trustee, in the United States National Bank, Madras, Oregon.

Time is of the essence of this agreement in all particulars.

This agreement is binding upon the heirs, executors, administrators, successors and assigns of the parties hereto.

IN WITNESS WHEREOF the lessors have hereunto set their hands and seals and the lessee has caused these presents to be executed for and on behalf of the partnership pursuant to authority of all partners.

Executed this _____ day of _____, 195__.

_____(SEAL) P.S.

_____(SEAL) P.S. ulmx D.C.S. attorney

_____(SEAL) G.M.W.

_____(SEAL) N.A.W.

_____(SEAL) M.O.

_____(SEAL) [illegible]

_____(SEAL) H.H.J.

_____(SEAL) J.S.J.

_____(SEAL) V.B.S.

Lessors

INTERNATIONAL ENGINEERING & SUPPLY CO.

_____(SEAL) [illegible]

_____(SEAL) [illegible]

_____(SEAL)

_____(SEAL)

Vol. 17, No. 3 THE ORE.-BIN
March 1955 Portland, Oregon

OFFICIAL FILE COPY
DMEA 15
RECEIVED FEB 15 1957

DATE	INITIALS	CODE
2/19	WSM	400

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
Ward Office: 1069 State Office Bldg., Portland 1, Oregon
Telephone: COlumbia 2161, Ext. 488

ITEM # 7.
REFERENCE COPY ONLY

****

PROSPECTING FOR QUICKSILVER IN OREGON

By The Staff

Geology

Quicksilver occurrences are widely scattered over the State; however, mines which have shown significant production can be segregated into three large districts: the Western Cascades, Central Oregon, and Southeastern Oregon (see map). These districts are in regions of past widespread volcanic activity and, as in other quicksilver regions of the world, indicate a close association between volcanism and quicksilver deposition.

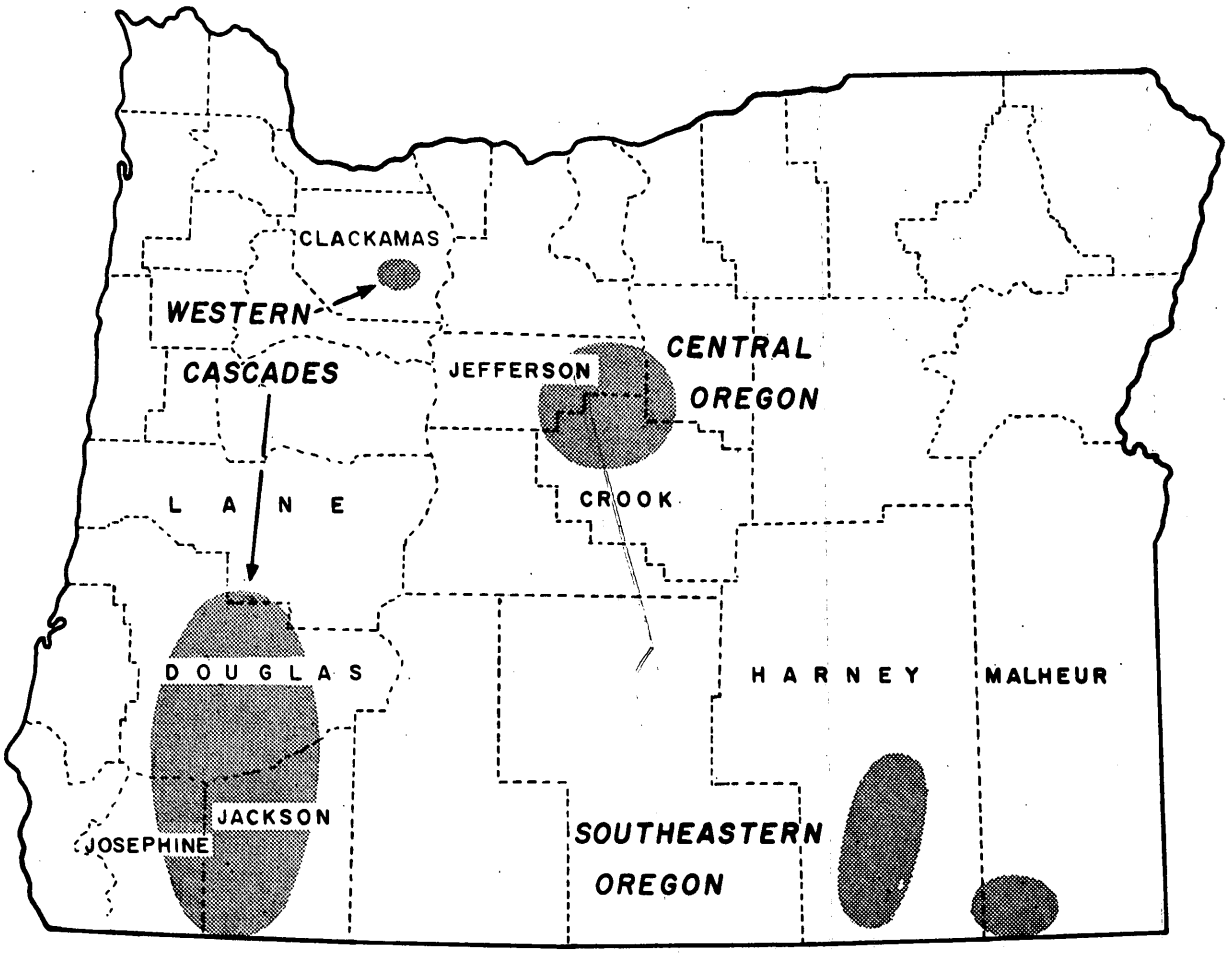
Quicksilver mineralization in Oregon occurred chiefly during the Tertiary period of the geologic time scale. It does not seem likely that the mineralization in all of the districts took place simultaneously; rather, mineralization was related to several periods of intrusion that occurred over many millions of years. Within limited portions of a district mineralization was somewhat contemporaneous as it resulted from a single intrusive episode.

Evidence obtained from study of quicksilver deposits (see bibliography) indicates that the deposits were formed at relatively shallow depths, from a few feet below the surface to about 4,000 feet. In some of the deposits downward percolating ground water may have been responsible for precipitation of the quicksilver contained in the rising mineralized hydrothermal solutions. It follows, then, that quicksilver deposits would be found in volcanic areas that have undergone relatively little erosion.

Ross (1942) has termed quicksilver a "lone wolf" among the metals as "No district that has been prominent in the quicksilver industry has had any large production of other metals and few are close to mining districts of other kinds." This holds true in Oregon, although some of the mines were located by prospectors following a gold "trace" in panning up a stream. Some gold has been found in the quicksilver mines of the Central Oregon district, but in no case has any quicksilver mine produced more than a very minor amount of metal other than quicksilver. The base metal mining area closest to any of the large quicksilver mines is the Bohemia mining district. It is approximately 15 miles east of the Black Butte quicksilver mine in Lane County.

If, as suggested above, quicksilver is deposited at shallow depths and is not associated with other metals, it may be inferred that the ascending mineralized hydrothermal solutions carrying the quicksilver are end-products resulting after any other metallic constituents have been precipitated. The solutions thus represent the last residues of a crystallizing magma beneath the area and are consequently of relatively low temperature and under low pressure. Transmission of the solutions from the magma surfaceward are necessarily through rather large pre-existing channelways (open faults, fissures and fractured zones) and precipitation is caused by any condition that halts the solutions or changes their pressure, temperature, or composition. At the Opalite mine in southeastern Oregon, Yates (1942) proposed transmission through open fault fissures and precipitation due to the downward movement of ground water. In the Horse Heaven area of central Oregon, Waters and others (1951) considered the control for transmission to be fractures in or near volcanic plugs and stated that ". . . individual ore shoots owe their position and richness to a complex combination of minor structural features." They stated that the most important factor for formation of a deposit was the presence of permeable rocks, which generally were the shattered portions of plugs and dikes and breccia zones along faults that cut the plugs or adjacent wall rocks. Locally rich ore was commonly found in breccias just beneath cappings of clay or other impermeable rock. In the Bonanza-Nonpareil area of the Western Cascades, Brown and Waters (1951) determined that the primary transmission of the ore solutions was upward along sheared zones. They stated that "Deposition of cinnabar was controlled to a large degree by the original

permeability of the beds (sandstones) and by the induced permeability brought about by shearing within certain well-defined zones." An additional controlling factor at the Bonanza mine was an impervious shale overlying the country rock of sandstone while at the Nonpareil, cross faults cutting the shear zones contributed to localizing the solutions. What role carbonaceous and bituminous substances play in the deposition of quicksilver is not clearly understood, but gilsonite and similar material are rather plentiful in the ores of the Central Oregon district and cinnabar in coal is found in the War Eagle mine of Jackson County in the Western Cascade district.



PRINCIPAL QUICKSILVER DISTRICTS

Principal Quicksilver Producers[1]

	Mine	County		Mine	County
1.	Kiggins	Clackamas	13.	Bonanza	Douglas
2.	Nisbet	"	14.	Elkhead	"
3.	Blue Ridge	Crook	15.	Mother Lode	"
4.	Byram and Oscar	"	16.	Cinnabar Mountain	Jackson
5.	Champion	"	17.	Mountain King	"
6.	Johnson Creek	"	18.	War Eagle	"
7.	Maury Mountain	"	19.	Axe Handle	Jefferson
8.	Mother Lode	"	20.	Horse Heaven	"
9.	Number One	"	21.	Black Butte	Lane
10.	Staley	"	22.	Bretz	Malheur
11.	Taylor Ranch	"	23.	Opalite	"
12.	Towner	"			

[1] Having total production in excess of 50 flasks. (Information from "Oregon Quicksilver Localities Map," 1945.)

As in most other quicksilver producing areas of the world, Oregon's principal ore of quicksilver is cinnabar, the monosulphide of the metal. It is easily identified because of its carmine red color and streak, its comparative high specific gravity (8.0 - 8.2) and its hardness (2 - 2.5). It will "hang back" in the pan but because it is soft and fairly brittle it usually will be found only as small fragments. In the "opalite" ore of southeastern Oregon the cinnabar blackens when exposed to sunlight and its characteristic red color is hidden. Freshly broken surfaces of the opalite ore will be red, however. It was this characteristic of the ore to blacken that probably delayed the discovery of the Opalite mine. In most deposits some native quicksilver and the black sulphide, metacinnabarite, are found but are not economically important.

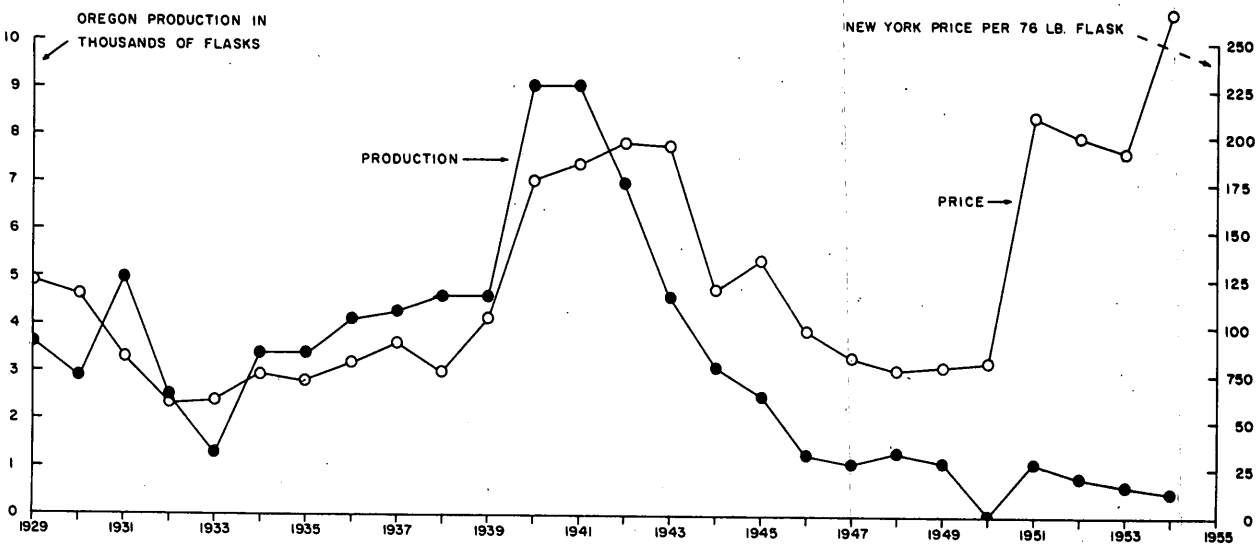
Prospecting guides

Certain generalizations can be made about the areas of the quicksilver deposits in Oregon that may be of help to those interested in prospecting. The broadest of these generalizations is that all deposits that have had any quantity of production are in or adjacent to areas of Tertiary volcanism. Generally, all sizeable deposits have been found within a fairly large (sometimes up to a mile in largest dimension) zone of alteration where the original appearance of the rocks has been almost entirely changed. Within the mineralized zones formed from the hydrothermal solutions, clay is the most common product of alteration. Carbonates (calcite, siderite, ankerite) and silica (quartz, chalcedony, opal) are frequently abundant and widespread. The sulphides of iron (pyrite and marcasite) may be plentiful and occasionally the red and orange sulphides of arsenic (realgar and orpiment) are found. Stibnite (antimony sulphide) is not uncommon and the hydrous sulphate of iron (melanterite) may be present.

In areas of "opalite" rocks, zones of silification, especially near faults, should be looked for carefully. The "opalite" rocks are dense, fine grained, brittle, and have a waxy lustre. These rocks may crop out as low knobs or they may be exposed in stream channels with lake beds or alluvium covering them. Within the silicified areas, zones of brecciation should be searched for. It must be remembered that in southeastern Oregon the cinnabar of such deposits is not bright red on the weathered surfaces so it is necessary to chip the outcrops when prospecting. Panning of unsilicified tuffs and lake beds that are contorted or have steep dips is also a good idea for the steep dips may reflect faulting at depth.

According to Waters and others (1951), all deposits of quicksilver ore thus far found in the Horse Heaven mine area of central Oregon lie within or adjacent to intrusive masses. Plugs of biotite rhyolite and augite andesite appear to be the most likely intrusions in which to prospect. Mineralizing solutions alter and soften the rocks making them more subject to weathering and erosion than the unaltered barren plugs. Therefore topographic lows or depressions should be investigated. Areas of fracturing in the plugs and permeable zones formed by faults in or adjacent to the plugs also offer good prospecting. Where plugs cut through red soil zones of early Tertiary age there is always the possibility that the impermeable clay soil has formed a trap for solutions carrying quicksilver.

In southwestern Oregon, Wells and Waters ((1934) have noted that "In many places adjacent to the principal ore bodies the rocks over areas of more than a square mile have been bleached and softened. At most localities the altered rocks are intersected by numerous small, relatively hard silica-carbonate veinlets that stand out on the surface as prominent ribs and strengthen and support the mass. Owing to the fact that these veinlets commonly contain much siderite and in some places a little pyrite, oxidation at or near the surface has stained them a dark, rich brown, causing them to stand out conspicuously against the light-colored matrix. These brown resistant veinlets are known to the miners as 'iron ribs' and are perhaps the most reliable surface indication of an altered or mineralized zone. Because of their resistance to solution the ribs accumulate on the surface of the altered zone as a dark-brown rubble."



OREGON QUICKSILVER PRODUCTION COMPARED WITH NEW YORK PRICE, 1929-1954.

Retorts for prospects

At quicksilver prospects the retort is still being used as a reduction plant. Since the firing is indirect, more fuel per ton is needed than in a large scale furnace; and the small tonnage makes the labor cost per ton much higher than in furnace plants. Still, one or two men can cut their own fuel, tend their retort, mine their ore, and make a nice profit on sorted high-grade ore with only a small capital expenditure for plant.

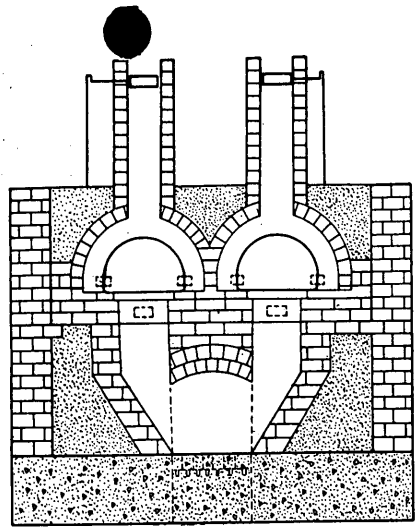
Retorts are generally round or D-shaped castings (see opposite page). Round pipes are usually about 1 foot in inside diameter and 6 to 7 feet long while D-retorts are 15 inches by 24 inches and 10 or 12 feet long. D-retorts are used singly or in sets of 2 and 3 with a common fire box. Pipe retorts are set up in benches of from 2 to 12 pipes.

Two things are important in setting up retorts. First, the bottom of the retort pipe must be protected from direct contact with the flames by one thickness of firebrick or tile. If this is not done the pipes burn out rapidly. Second, the condenser pipe which is fitted to the retort with cement must not be bricked in tight where it passes through the outer wall of the retort setting. The retort expands on being heated and if the condenser pipe is bricked in solidly the joint between them breaks and the quicksilver vapors leak out. Retorts should always be tested for tightness before being used by attaching a manometer to the plugged end of the condenser pipe or by covering this end with thin (toy balloon) rubber and then heating the closed retort to see if pressure is developed from the expanding air in it. If no pressure develops the retort leaks, and the leak must be found and repaired before being used.

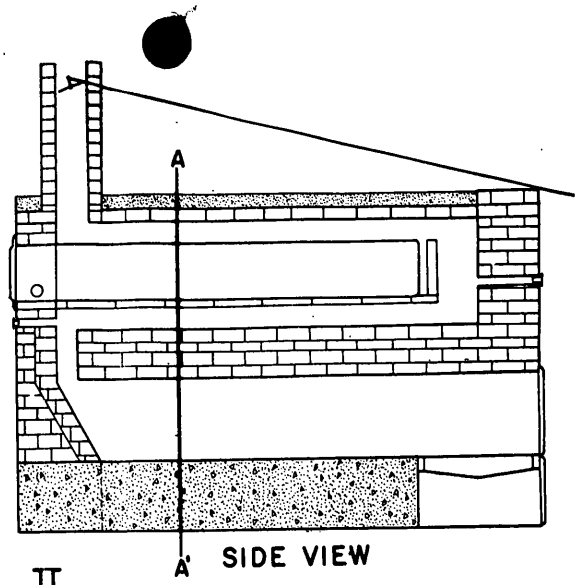
Lime should be used with the ore charged to the retort to prevent the iron of the retort from being attacked by the sulfur vapor.

Since the charging and discharging of a retort is accompanied by some danger to the operator of being poisoned by hot quicksilver vapors, the retort should be set up in such a position that the prevailing wind blows quarteringly across the front of it. Also, the ore should be charged in black iron pans so that charging and discharging can be done rapidly. An extra cover should be at hand already mudded and ready to be slapped on when the retort is opened for discharging and charging again.

Safety measures at retorts: Quicksilver poisoning is always a hazard when retorting and every precaution should be taken to guard against it. If a few rules for personal cleanliness are observed and if care is taken when charging and discharging the retort, the chances for poisoning will be practically eliminated. Washing up before meals, brushing of teeth before eating on the job, using an astringent mouthwash, and being careful not to roll cigarettes or

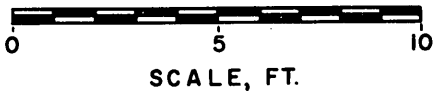


END VIEW

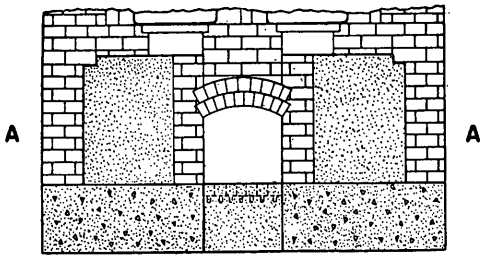


SIDE VIEW

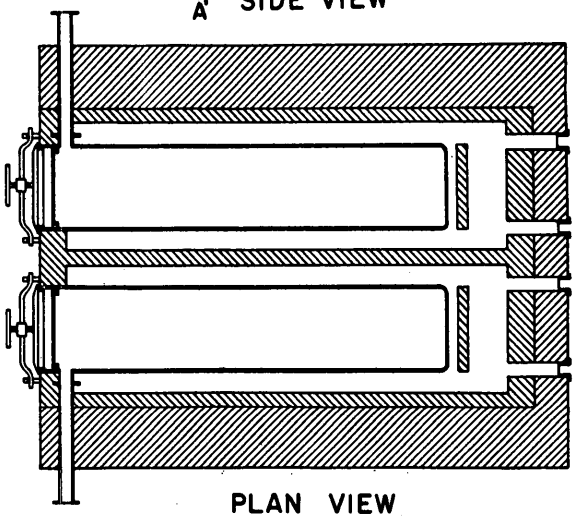
TYPICAL D RETORTS



SCALE, FT.

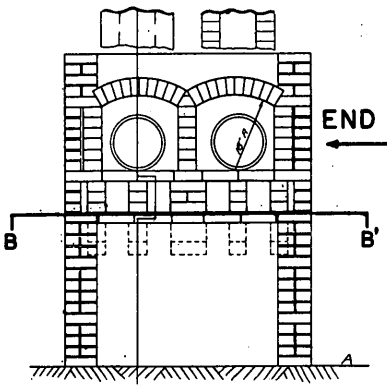


SECTION THRU A–A'



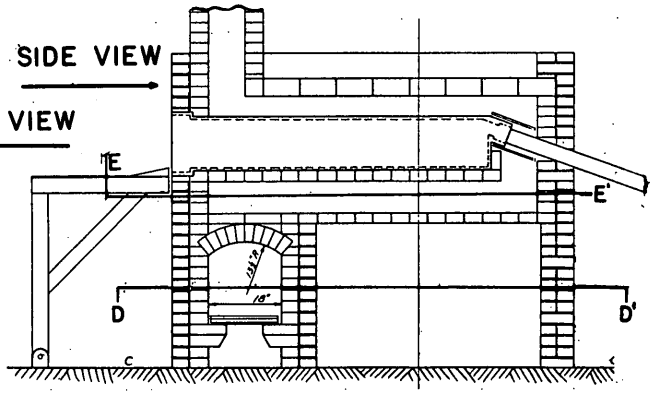
PLAN VIEW

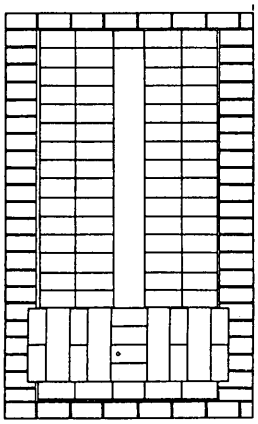
TYPICAL PIPE RETORTS



SIDE VIEW

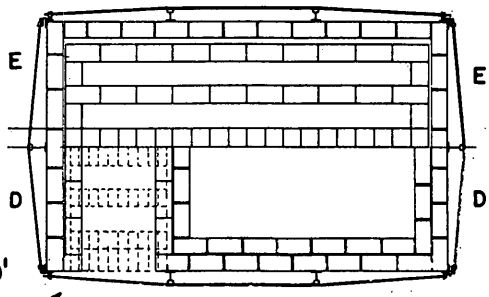
END VIEW





SECTION THRU B–B'

SECTION THRU E–E'



SECTION THRU D–D'

stuff pipes with fingers that are dirty with ore, soot, or metallic quicksilver, are some of the common sense habits that should be developed. Periodic medical examinations are always a good health inventory, no matter what the occupation.

Selected Bibliography

Brown, R. E., and Waters, A. C.
Quicksilver deposits of the Bonanza-Nonpareil district, Douglas County, Oregon: U.S. Geol. Survey Bull. 955-F, 1951. (For sale by Superintendent of Documents, Washington 25, D.C. $1.00)

Duschak, L. H., and Schuette, C. N.
*The metallurgy of quicksilver: U.S. Bur. Mines Bull. 222, 1925.

Ebner, M. J.
A selected bibliography on quicksilver, 1811-1953: U.S. Geol. Survey Bull. 1019-A, 1954. (For sale by Superintendent of Documents, Washington 25, D.C. 25 cents)

Frederick, Francis
State of Oregon map showing location of quicksilver deposits: Oreg. Dept. Geology and Mineral Indust., scale 1:1,000,000, 1945. (For sale by Department, 25 cents.)

Reed, G. C.
**Exploration of Glass Buttes mercury deposit, Lake County, Oregon: U.S. Bur. Mines Rept. Invest. 3926, 1946.

Ross, C. P.
Some concepts on the geology of quicksilver deposits in the United States: Econ. Geol., vol. 37, no. 6, p. 439-465, Sept.-Oct. 1942. (May be obtained from Economic Geology Publishing Company, Urbana, Illinois)

Schuette, C. N.
*Quicksilver in Oregon: Oreg. Dept. Geology and Mineral Indust. Bull. 4, 1938.

Von Bernewitz, M. W.
**Occurrence and treatment of mercury ore at small mines: U.S. Bur. Mines Inf. Circ. 6966, 1937.

Waters, A. C., and others
Quicksilver deposits of the Horse Heaven mining district, Oregon: U.S. Geol. Survey Bull. 969-E, 1951. (For sale by Superintendent of Documents, Washington 25, D.C. $1.75)

Wells, F. G., and Waters, A. C.
*Quicksilver deposits of southwestern Oregon: U.S. Geol. Survey Bull. 850, 1934.

Williams, Howel, and Compton, R. R.
Quicksilver deposits of Steens Mountain and Pueblo Mountains, southeast Oregon: U.S. Geol. Survey Bull. 995-B, 1953. (For sale by Superintendent of Documents, Washington 25, D.C. 65 cents)

Yates, R. G.
*Quicksilver deposits of the Opalite district, Malheur County, Oregon, and Humboldt County, Nevada: U.S. Geol. Survey Bull. 931-N, 1942.

---

*Out of print. May be consulted at Department library and public libraries.

**Free on application to Publications Distribution Section, U.S. Bureau of Mines, 4800 Forbes Street, Pittsburgh 13, Pennsylvania.

****

INTERNATIONAL ENGINEERING & MINING CO.

MINE HEADQUARTERS, ASHWOOD, OREGON

POST OFFICE BOX 278 / SANTA BARBARA / CALIFORNIA

Cable Address: INEMCO

President
FRANK SYLVESTER
Executive Vice-President
E. L. CLEVELAND
Vice-President
P. L. SCHNEIDER
Secretary-Treasurer
E. L. SYLVESTER

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 15 1957

DATE	INITIALS	CODE

MAIN OFFICE
Santa Barbara, Calif.
WOodland 5-1615
WOodland 9-7603

BRANCH OFFICE
106 W. Wyoming Ave.
Las Vegas, Nevada

ENCLOSURE # 8.

Re: AXEHANDLE MINE

ITEM # 4 (d): Property is located 32 miles from the County seat (Madras) Jefferson County, Oregon and is 4½ miles east of Ashwood, Oregon. All year County maintained road to the mine entrance.

Nearest shipping point, Madras, Oregon.

Nearest supply points, Ashwood and Madras Oregon.

Residence facilities available on mine proper.

ITEM # 4 (e): Manpower available in Ashwood and Madras Oregon.

All Necessary materials, supplies, and equipment not available in Ashwood or Madras Oregon, available overnight trucking by the Portland-Bend Truck Line from Portland, Oregon.

Water available from all year springs or shallow well facilities on property.

Power available from Wasco Co-op Power Company on lines paralleling county road at mine entrance. Distance from county road to mill site 5/8 of one mile. Power now supplied by Company owned generator unit.

INTERNATIONAL ENGINEERING & MINING CO.

MINE HEADQUARTERS, ASHWOOD, OREGON

POST OFFICE BOX 278 / SANTA BARBARA / CALIFORNIA

Cable Address: INEMCO

President
FRANK SYLVESTER

Executive Vice-President
E. L. CLEVELAND

Vice-President
P. L. SCHNEIDER

Secretary-Treasurer
E. L. SYLVESTER

MAIN OFFICE
Santa Barbara, Calif.
WOodland 5-1615
WOodland 9-7603

BRANCH OFFICE
106 W. Wyoming Ave.
Las Vegas, Nevada

ENCLOSURE # 9, Page one of Two.

ITEM # 5 (d): General Partners.

FRANK S. SYLVESTER: 20 years of general business experience as Vice President of two California Corporations engaged in common carrier operations, light manufacturing, labor managment and allied business. Two years as President of the Tri-Counties Employers Association, Santa Barbara, California and five years as board member of same. World War Two record: 5 years with U.S. Air Force as Field Grade Officer, with various duties including Air Base Commander. Co-owner of the Falcon-Mercury Mine and Los Prietos Mercury Mine in Santa Barbara County, California. General Partner and President International Engineering & Supply Co. General Partner and President of International Engineering and Mining Co.

E.L. CLEVELAND: 30 years of general mining experience in all types of minerals and metals, development and operation of many mines throughout the Western part of the U.S. Developer of one of the largest chrome mines in the U.S. Butte Montana and sold to the American Chrome Corporation. World War Two Military record: Air Force Officer. Co-owner and Executive Vice-President of the Falcon-Mercury Mine and Los Prietos Mercury Mine in SantaBarbara County, California. General Partner and Executive Vice President International Engineering & Supply Co. General Partner and Executive Vice-President International Engineering and Mining Co.

P.L. SCHNEIDER: 28 years as Construction Engineer, specializing in heavy construction of all types, Road building, Dams, Open Pit mining, Exploratory work for various Major companies. Construction of bridges, Dams, Roads, and other operations for the Federal Agencies, ie; Corps of Engineers, Bureau of the Interior, Atomic Energy Commissión, etc. World War Two Military record; Field Grade Officer for the Corps of Engineers. 1950-56 Co-owner Carter and Schneider Construction Company. Carter-Schneider-Nelson Construction Company, Las Vegas, Nevada. C o-owner of Los Preitos Mercury Mine in Santa Barbara County, California. Co-owner and Vice-President International Engineering & Supply Co. General Partner and Vice-President International Engineering and Mining Company.

INTERNATIONAL ENGINEERING & MINING CO.

MINE HEADQUARTERS, ASHWOOD, OREGON

POST OFFICE BOX 278 / SANTA BARBARA / CALIFORNIA

Cable Address: INEMCO

President
FRANK SYLVESTER

Executive Vice-President
E. L. CLEVELAND

Vice-President
P. L. SCHNEIDER

Secretary-Treasurer
E. L. SYLVESTER

MAIN OFFICE
Santa Barbara, Calif.
WOodland 5-1615
WOodland 9-7603

BRANCH OFFICE
106 W. Wyoming Ave.
Las Vegas, Nevada

ENCLOSURE # 9. Page two of two.

E.L. SYLVESTER: 15 years general business experience, common carrier operations. Real Estate Broker, State of California, Co-Owner of the Falcon Mercury Mine and the Los Prietos Mercury Mine in Santa Barbara County, California. General prospecting on various types of minerals for a national mining Corporation. Field Assay work and general mine rehabilitation and maintenance. General Partner and Secretary-Treasurer International Engineering and Supply Company. General Partner and Secretary-Treasurer International Engineering and Mining Company.

LIMITED PARTNERS: For names and addresses of limited partners, see enclosure # 1.

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 1 1957

DATE	INITIALS	CODE

ENCLOSURE - - - - - - - -# 10
INTERNATIONAL ENGINEERING & MINING CO.
622 Anacapa Street, Santa Barbara, Calif.

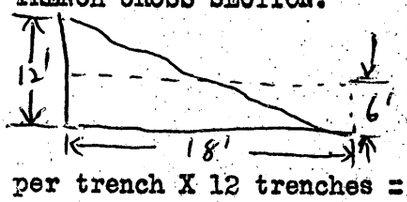
Re: AXEHANDLE MINE.

SCOPE OF EXPLORATORY WORK PROJECT.

Item # 1- D8 cat or equal bulldozer with ripper.

Cross trench excavation area 900' X 2000' plus or minus - 12 cross trenches at 125' plus or minus intervals X 900' feet long.

TRENCH CROSS SECTION.



= 6'X18'= 108 c.f.X900 lin. ft. ÷ 27 = 3600 cu. yrds. per trench X 12 trenches = 43,200 cu. yrds.

Average cost per cubic yard 24¢ X 43,200 cubic yards - $10,386.00

Item #2- Percussion drilling.

Drilling 70' to 160': average 115'.

Class A Drilling - requiring casing, average 60' feet per hole.

Class B Drilling - Not requiring casing, average 55' per hole.

Holes @ 100' on center in trench - 9 holes per trench, 9 holes per trench = 108 holes.

108 holes X 60' Class A drilling = 6,480 feet. @ $2.80 p/f - $18,144.00

108 holes X 55' Class B drilling = 5,940 feet. @ $1.60 p/f - $ 9,504.00

Item #3- Exploratory tunnels.

Drift A- Randolph Adit location- 100' drift.

Drift B- Whorton prospect location - 100' drift.

200' of 5X7 Timbered drift @ $40.00 per foot - $ 8,000.00

Item #4- Certified assays.

E xploratory drifts total 200', certified assays at 5' intervals - 40 assays.

40 assays at $4.30 per assay - $ 172.00

Exploratory drilling - 12,420' of holes - assays at 10' intervals - 1,240 assays.

1,240 assays at $4.00 each, plus tare = $4.30 each - $ 5,332.00

Sample bags for assays - 150 bags at 35¢ each - $ 52.50

Item #5- Engineering and Geology.

Estimate time of contract - (8) eight months.

Mining Engineer Consultant - $ 1,000.00

Geological Consultant, Avg. 6 days p/month @ $50.00 p/d $ 2,400.00

Final Evaluation report - $ 750.00

ENCLOSURE- - - - - - - - #10.
INTERNATIONAL ENGINEERING & MINING CO.
622 Anacapa Street, Santa Barbara, Calif.

R e: AXEHANDLE MINE.

SCOPE OF EXPLORATORY WORK PROJECT.

Item #6- Mine Superintendent.

8 Months at $850.00 per month - $ 6,800.00

Item #7- Sample Taker and Field Assayer.

Sampler and Field Assayer at $525.00 per month - $ 4,200.00

Item #8- Field Assay equipment - $ 400.00

Material for assaying 1,240 samples @ 28¢ each - $ 347.20

Item #9- Four wheel drive pick-up truck.

4 X 4 monthly rental - $150.00.

4 X 4 Fuel and Maintenance per month $100.00.

8 months at $250.00 per month - $ 2,000.00

Item #10 - Utility Man, Pick-up driver and laborer.

8 Months - 8 X 41/3 = 34 1/3 weeks @ $90.00 per week - $ 3,120.00

Item #11- Taxes.

Items # 5- $6,800.00
6- $4,200.00
#9 - $3,120.00
Total $14,120.00

Compensation, State U. & OA = 11% of payroll - $ 1,553.20

Item #12- Building repairs-

Bunkhouse and Kitchen for contractors employees - $ 400.00

Item #13 - Contingency Fund- 5% of drilling cost and plus or minus adjustment of item # 2 - $ 1,382.90

Total for project - $75,925.30

25% Company participation - $18,981.33

75% Government participation - $56,943.97

INTERNATIONAL ENGINEERING & MINING CO.

MINE HEADQUARTERS, ASHWOOD, ~~OREGON~~
POST OFFICE BOX 278 / SANTA BARBARA / CALIFORNIA
Cable Address: INEMCO

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 15 1957

DATE	INITIALS	CODE

President
FRANK SYLVESTER
Executive Vice-President
E. L. CLEVELAND
Vice-President
P. L. SCHNEIDER
Secretary-Treasurer
E. L. SYLVESTER

MAIN OFFICE
Santa Barbara, Calif.
WOodland 5-1615
WOodland 9-7603

BRANCH OFFICE
106 W. Wyoming Ave.
Las Vegas, Nevada

ENCLOSURE # 11. Part 1.

This is to certify our willingness to participate in expenses as accrued and as set forth in Item # 7 (b) of Form MF-103 (Revised April, 1952).

International Engineering & Mining Co.

Frank S. Sylvester

By: Frank S. Sylvester, President

INTERNATIONAL ENGINEERING & MINING CO.

MINE HEADQUARTERS, ASHWOOD, OREGON

POST OFFICE BOX 278 / SANTA BARBARA / CALIFORNIA

Cable Address: INEMCO

President
FRANK SYLVESTER

Executive Vice-President
E. L. CLEVELAND

Vice-President
P. L. SCHNEIDER

Secretary-Treasurer
E. L. SYLVESTER

MAIN OFFICE
Santa Barbara, Calif.
WOodland 5-1615
WOodland 9-7603

BRANCH OFFICE
106 W. Wyoming Ave.
Las Vegas, Nevada

ENCLOSURE # 11. Part 2

Re: AXEHANDLE MINE.

SUMMARY

Your attention is invited to enclosure #4, Consent to lien and subordinate agreement, Form MF-205, which has been signed by Mr. Daniel Swanson, who holds power of attorney to act for the owners in contractual matters pertaining to the Axehandle Mine; however the signatures of each individual owner (Some non-resident of the area) will be obtained when the lease and purchase agreement are activated and prior to entering into a contract with the government.

We have altered our plans as set forth in a letter to you, dated November 9, 1956, whereby we had contemplated running a 200 ton mill sample at the Horseheaven mine; as this in itself would only prove surface values as exposed, and to mill ore from known high values would be proving nothing as far as the extent of the mineralization, and would only be a requisite to offset the excessive costs of hauling and milling; a distance of 14 miles over a gravel road.

Therefor we have done considerable more stripping and our Smith-Emery assay reports on Mercury determination, bear out our own assays of millable ore far in excess of the values anticipated.

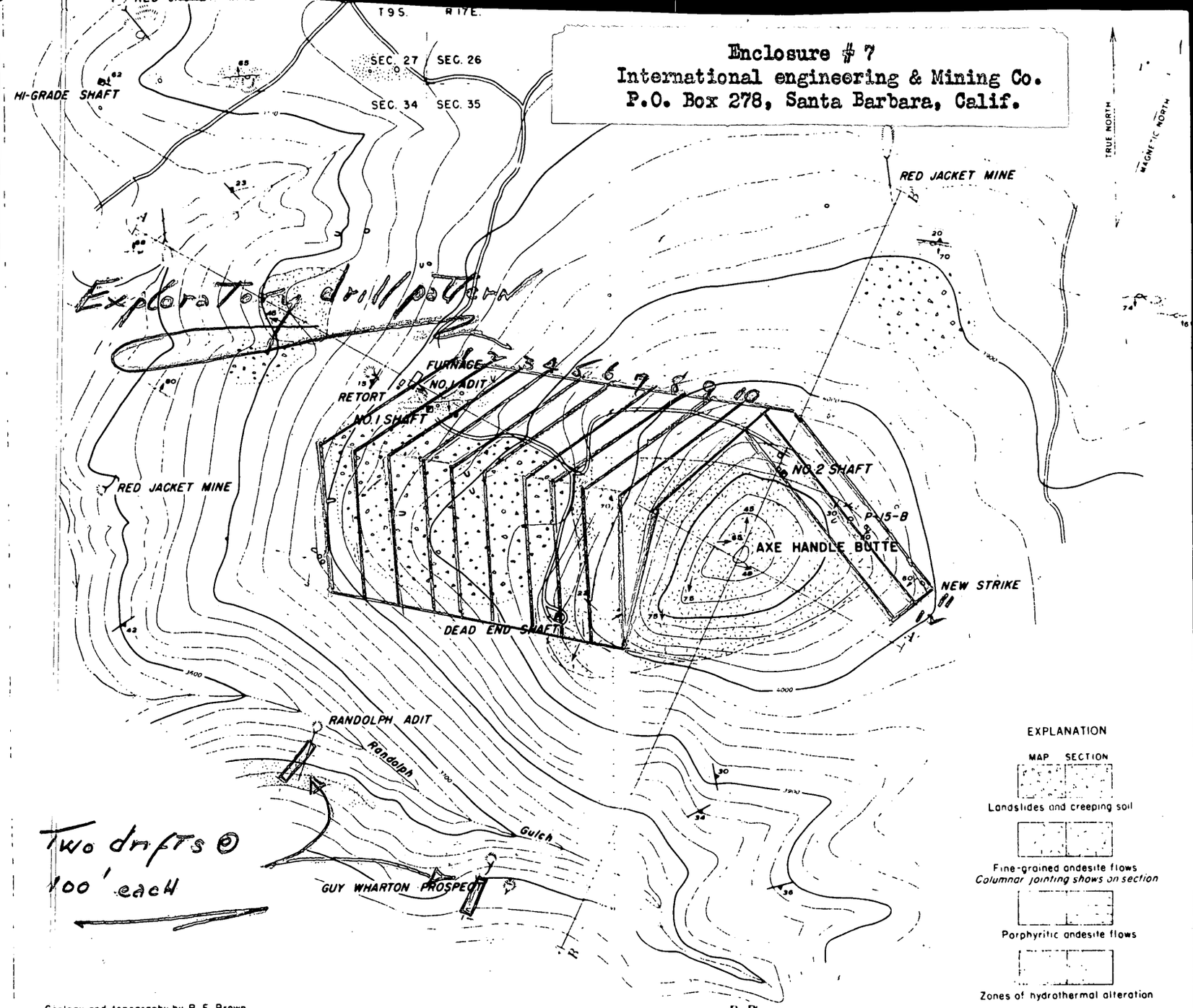
We have purposely deleted unconfirmed data of previous underground (caved in) workings and supplemented geological references and engineering data which you no doubt have on file, ie;

#1- Quicksilver in Oregon, 1938, by: C.N. Schuette.

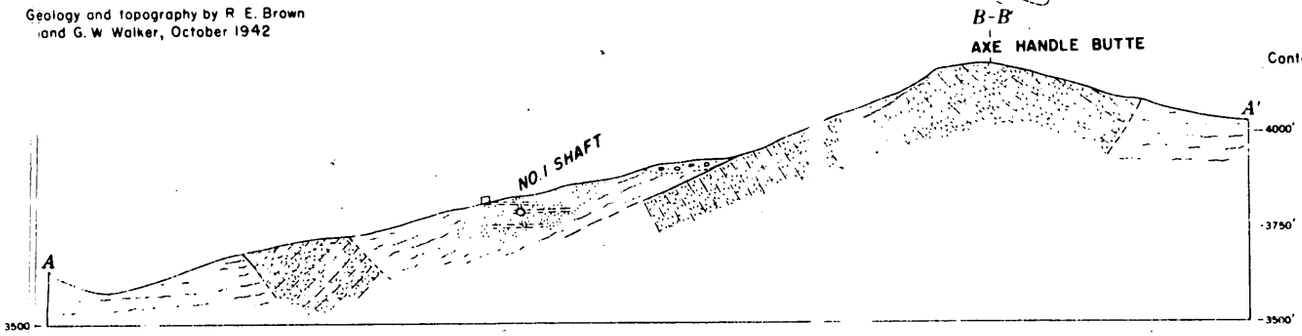
#2- Bulletin #969, plate 37, Geological Survey. Geology by: R.E. Brown and G.W. Walker, 1943, and papers envelope # 15; Topography Plan and Sections of shaft workings, Axehandle Mine, Jefferson County, Oregon, by: United States Bureau of the Interior.

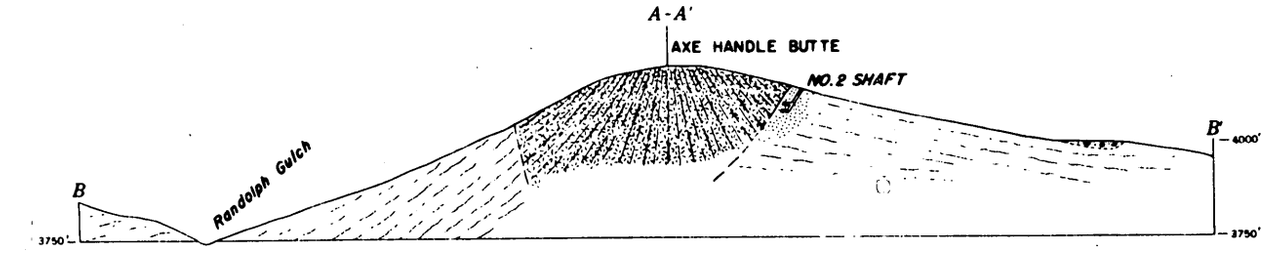
We are unable to furnish copies of the above publications due to the fact they are out of print and only available to us as Library references. The attached photostats of Bulletin #969 were made for us by the Oregon, State Department of Geology and Mineral Industries.

Enclosure # 7
International engineering & Mining Co.
P.O. Box 278, Santa Barbara, Calif.



Geology and topography by R. E. Brown
and G. W. Walker, October 1942





EXPLANATION

MAP SECTION

Landslides and creeping soil

Fine-grained andesite flows
Columnar jointing shows on section

Porphyritic andesite flows

Zones of hydrothermal alteration

Contact, showing dip; dashed where approximate and dotted where indefinite

Strike and dip of shear plane

Strike and dip of flow layering

Plunge of columnar joints

Shaft

Adit

Open-cut or pit

Dump

GEOLOGIC PLAN OF LEVEL 1 AND DISCOVERY ADIT. HORSE HEAVEN MINE. JEFFERSON COUNTY. OREGON

250 0 1000 Feet

Contour interval 20 feet
Datum is mean sea level

903601 O - 51 (In envelope) No. 15

PROJECT SUMMARY REPORT

By: J. W. Alt

August 5, 1959

1. Docket No. DMEA-4641 (Mercury)
Contract No. Idm-E1123
Property: Axehandle Mine
Jefferson County, Oregon

Operator: Internation Engineering and Mining Company
622 Anacapa Street
Post Office Box 278
Santa Barbara, California

Operator's Property Rights: Lessee
Option to Lease or purchase dated October 15, 1956
Consent to Lien and Subordination Agreement dated July 22, 1957.

2. Contract dated August 21, 1957. To complete - 1 year.

Work proposed by Applicant is 12 dozer trenches, 12,420 feet of percussion drilling in 108 holes, and 2-100-foot drifts. The total estimated cost of the project, including repairs to buildings, supervision, equipment rental, assaying, etc. is $75,925.30.

Work Authorized

Description of the Work

1. With a D-8 bulldozer or equivalent perform the following work:

   (a) Strip along an area approximately 1,000 by 50 feet, and excavate trenches across mineralized zones.

   (b) Strip along the altered contact zone in the vicinity of the Dead End shaft collar, and excavate trenches across the mineralized zones.

   (c) Prepare churn drill sites and roads to the drill sites.

2. In the New Strike, P-15-B and No. 2 shaft area, churn drill a maximum of 6 vertical holes each to a maximum depth of 125 feet and not to exceed 750 feet of drilling.

3. In the No. 1 shaft area, churn drill 4 holes; two to a depth of 150 each and two to a depth of 125 feet each, or a total of 550 feet of churn drilling.

4. In the Dead End shaft area, churn drill a maximum of 4 holes each to a maximum depth of 75 feet, or not to exceed a total of 300 feet.

Estimated Costs of the Project

Actual Costs

Category (1) Independent Contracts

Actual Costs

(a) Bulldozing - 100 hours @ $15.00/hr.	$ 1,500.00
(b) Churn drilling - 1600 feet of 6-inch holes @ $3.45/ft.	5,520.00

Fixed Unit Cost

Chemical analysis, 150 samples @ $4.00/each	600.00
Drying samples, 150 samples @ $1.60/each	240.00
Incidental allowance for each foot of drilling completed, 1,600 feet @ $1.60/ft.	2,560.00
Estimated Total Cost of Project	$10,420.00
Government's participation, @ 75%	$ 7,815.00

Amendments

No. 1 Dated February 19, 1958.

Time of commencing work is extended from February 15, 1958 to April 1, 1958.

No. 2 Dated April 21, 1958.

Time of commencing work is extended from April 1, 1958 to May 15, 1958. (Amendment No. 1)

Work Completed

Bulldozing, 100 hours @ $15.00/hr.	$1,500.00
Churn drilling, 1,338 feet @ $3.45/ft.	4,616.10
Chemical assays, 7 feet @ $4.00/each	28.00
Drying samples, 41 @ $1.60/each	65.60
Incidental allowance per foot drilled, 1,338 feet, @ $1.60/ft.	2,140.00
Total Cost of Project	$8,350.50
Government participation @ 75%	$6,262.88

Work on the project was started on April 27, 1958 and was completed by June 15, 1958.

Field Team final report dated March 1959, received April 13, 1959.
Operator's final report dated July 28, 1958, received February 19, 1959.

No equipment purchased under contract.

3. Audit - dated April 2, 1959.

Total cost as billed by Contractor	$13,050.12
Exceptions	4,699.62
Total accepted cost	$ 8,350.50
Government participation @ 75%	$ 6,262.88

4. Certification of discovery or development

None issued.

5. Comments

All work was completed in a satisfactory manner.

The bulldozing was handicapped by wet weather; the soil became very muddy making it hard to move equipment. The churn drilling was satisfactory except that when basalt boulders were encountered the drilling rate was slower.

Operator's monthly narratives and final report are good. The Operator's greatest difficulty appeared to be invoicing in a satisfactory manner the work that was performed by the contractor who conducted the project work and reportedly furnished the financing.

The Axehandle Butte area contains five mercury bearing zones in highly altered extrusive volcanics localized along or near the margins of a generally unaltered andesite plug. Three of the mercury-bearing zones are considered sufficiently promising to warrant limited exploration with DMEA support.

The trenches exposed the altered zone in the areas that were to be drilled. Only small amounts of mercury were found in the trenches. The ore was very fine-grained, often necessitated a hand lens for detection, and in many instances was "painted." The drilling was as unsuccessful as the trenching in finding a significant occurrence of mercury ore. Eight holes totaling 1,338 feet were drilled. The Operator performed additional trenching and drilling to exhaust other indicated possibilities of finding an ore body.

The target areas have been adequately explored and there are no presently known geologic targets warranting exploration.

The Division of Minerals concurs with the Field Team's recommendation that no certification of discovery or development be made and that additional exploration on this property with Government financial assistance is not warranted.

J. W. Alt

J. W. Alt

JWAlt/er
CC: Docket
Dir Read File
Chron.

OFFICE OF MINERALS EXPLORATION

WORK COMPLETED ANALYSIS

Certified

After final audit or review report is received, prepare in duplicate. File original in official docket. Send copy to Code 210.

erator International Engineering and Mining Company

Actual Cost X

ate Oregon Mercury

Agreed Unit Cost X

nal Report Audit April 2, 1959

Commodity

Docket No. DMEA-4641

nal Report Review

Contract No. Idm-E 1123

Type of Work (Use these categories only)	Authorized by Contract and Amendments		Completed and Paid for		Net cost after sale of Gov't. Property
	Units	Cost 1/	Units	Cost 1/	
Actual Costs ~~Drifting & Crosscutting~~ Bulldozing	100 hrs.	$1,500.00	100 hrs.	$1,500.00	
Fixed Unit Costs ~~Raising~~ Chemical Analysis, etc		3,400.00		2,234.40	
Shafts					
Winzes					
Drilling (Specify) Actual Costs Churn - 6 in. holes.	1,600'	5,520.00	1338'	4,616.10	
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals		$10,420.00		$8,350.50	2/

1/ Round off to dollars.
2/ Net cost total must agree with final report of audit or review.

Prepared by J. W. Alt Date 8/3/59

52616

So. 157 Howard Street
Spokane 4, Washington

April 24, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 27 1959

DATE	INITIALS	CODE
4/27	G	220
4/27	400	800
4/28	WSM	400

International Engineering and Mining Company
622 Anacapa Street
P. O. Box 278
Santa Barbara, California

Re: Docket No. DMRA-4641 (Mercury)
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-E1123

Gentlemen:

Enclosed, for your information and files, is a copy of an Audit Certificate and Audit Report covering a project for the exploration of mercury at the Axehandle Mine during the period of May through July 1958.

The audit discloses that there is a balance of $6,262.88 due your company. This has been scheduled for payment and you should receive a check in a few days.

Sincerely yours,

Donald R. MacLaren
For: A. E. Weissenborn
Executive Officer, OME
Field Team Region I

Enclosure

cc: OME (2)
USBM (2)
USBM(AD)

To 800

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 27 1959

DATE	INITIALS	CODE
4/28	a	220
4/28	WSM	400

1201 N. Division St.
Spokane 2, Washington

April 20, 1959

Mrs. Dorothy Long, Certifying Officer
OME Field Team, Region I
1201 N. Division Street
Spokane 2, Washington

Re: Docket No. DMEA-4641 (mercury)
International Engineering and
Mining Company
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-K1123

Dear Mrs. Long:

The work completed under the contract was done to the satisfaction of the Government. The work authorized under the contract was completed by July 12, 1958. A final report evaluating the results of the exploration program has been presented by the Operator and accepted by the Executive Officer.

The Government has no interest in supplies or equipment purchased for use on the project.

Certification of Discovery or Development will not be recommended by the Field Team.

A final Audit Report dated April 2, 1959 by OME Auditor George Mavor has been received.

As all contract requirements have been met, it is requested that final settlement of our account with the Operator be made.

Sincerely yours,

A. E. Weissenborn, Exec. Officer
OME Field Team, Region I

cc: OME (2)
USGS (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

1201 N. Division St.
Spokane 2, Washington

April 9, 1959

Memorandum

To: Chairman, Operating Committee, OME

From: OME Field Team, Region I

Subject: Docket No. DMEA-4641 (mercury), International Engineering and Mining Company, Axehandle Mine, Jefferson County, Oregon, Contract No. Idm-E1123

Enclosed are three copies of a Field Team final report on this project by Eric G. Erickson, Mining Engineer, Bureau of Mines, and Donald R. MacLaren, Geologist, Geological Survey.

The project work consisted of 100 hours of trench dozing and 1,338 feet of churn drilling. The total cost was $8,350.50 (subject to audit) and the Government participation at 75 percent amounted to $6,262.88.

The project was unsuccessful and a Certification of Discovery or Development is not recommended.

Audit approved & released 4/9/59 Talbert

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 13 1959

DATE	INITIALS	CODE
4/13	C	220
4-13		130
4-17	JHB	130
4-17	C	220
		~~170~~
4/21		800
4/21	(2)WSM	400

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

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

Enclosures

cc: USGS

Reviewed by
OME OPERATING COMMITTEE
4-17-59
(date)

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 13 1959

DATE	INITIALS	CODE
4-17	JHB	130
		220

FT's FINAL RPT.

DEPARTMENT OF THE INTERIOR

OFFICE OF MINERALS EXPLORATION

FIELD TEAM, REGION I

FINAL REPORT

Contract Idm-E1123

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

Donald R. MacLaren
Geologist
U. S. Geological Survey

INTERNATIONAL ENGINEERING AND MINING COMPANY
P. O. Box 278
Santa Barbara, California

Docket No.:	DMEA-4641
Commodity:	Mercury
Contract date:	August 21, 1957
Termination date:	July 12, 1958

Axehandle Mine
Horse Heaven Mining District
Jefferson County, Oregon

Spokane, Washington

Reviewed by
OME OPERATING COMMITTEE
4-17-59
(date)

March 1959

CONTENTS

	Page
INTRODUCTION	1
Summary	1
Recommendations	1
LOCATION AND ACCESSIBILITY	2
PROPERTY	2
History, Production and Facilities	3
GEOLOGY	4
THE PROJECT	6
Summary of Factual Data	8
Discussion of Conclusions	8

ILLUSTRATIONS

	In pocket
Plate 1. Geologic map of the Axe Handle mine area, Horse Heaven District, T. 9 S., R. 17 E., W.M., Jefferson County, Oregon	

FINAL REPORT

INTERNATIONAL ENGINEERING AND MINING COMPANY
Axehandle Mine
Jefferson County, Oregon

Contract Idm-E1123

* * * *

INTRODUCTION

This report describes a project conducted jointly by the International Engineering and Mining Company and the Defense Minerals Exploration Administration to explore for mercury at the Axehandle mine, Jefferson County, Oregon.

Summary

The purpose of this project was to explore the Axehandle property for mercury deposits by bulldozing trenches and churn drilling in the New Strike, P-15-B, No. 2 Shaft area, the Dead End Shaft area, the No. 1 Shaft area, and other areas approved by the Government.

The Operator expended in excess of 100 hours dozing trenches, performed 1,338 feet of churn drilling, dried 41 samples, and had 7 samples assayed for mercury. The total accepted cost of the project work, including an incidental per foot of drilling, was $8,350.50, and the Government participation at 75 percent amounted to $6,262.88.

The target areas were adequately explored and the results were negative in regards to finding a significant amount of mercury mineralization.

Recommendations

The project was unsuccessful and a Certification of Discovery or Development is not recommended.

The target areas were adequately explored and there are no presently known geologic targets warranting exploration; therefore, no further exploration is recommended.

LOCATION AND ACCESSIBILITY

The Axehandle mercury mine is situated about 32 miles easterly of Madras, Oregon. The property may be reached by traveling about 28 miles on a graded road to Ashwood, Oregon, thence 4 miles easterly on a similar graded road to the property which is situated on the north and west slopes of Axehandle Butte, about three quarters of a mile south of the road. The elevation at the old furnace situated near the main workings is about 3,850 feet.

The regional climate is semi-arid with long, dry, hot periods during the summer; the winters are moderate with light snowfall. During wet periods, generally in the fall and spring, the roads are muddy, making travel difficult.

There are numerous clumps of juniper and sagebrush and sparse grass throughout the area.

PROPERTY

The lands included in the contract are situated in secs. 34 and 35, T. 9 S., R. 17 E., W.M., Jefferson County, Oregon, described in detail as follows:

> S½ of NW¼ and all that part of the NW¼ of NW¼, sec. 35, T. 9 S., R. 17 E., W.M., lying south of the premises known and named as the Red Jacket mine and being about 25.02 acres of land in said NW¼ of sec. 35.
>
> W½ of SW¼, sec. 35, and that part of SE¼ of NE¼ of sec. 34, T. 9 S., R. 17 E., W.M., lying north of Randolph Gulch and containing 30 acres, more or less;
>
> E½ of SE¼, sec. 34; and a certain lode mining claim, Notice of Location of which was filed by Lavey C. Swanson, said mining claim being known as the Better Chance, and said Notice having been filed September 20, 1937, which claim, according to the description contained in the Notice is as follows:
>
> Commencing at a post marked NE corner at the NE corner, which is approximately 846 feet in a southerly direction from the NE corner of sec. 34, T. 9 S., R. 17 E., W.M., from thence 300 feet in a southerly direction to the east center end post marked east center end;

thence 300 feet in a southerly direction to a corner post marked southeast; thence 1,400 feet in a westerly direction to the southwest corner post marked southwest corner; thence 300 feet in a northerly direction to the west center end post marked "West Center End"; thence 300 feet in a northerly direction to a corner post marked "Northwest"; thence 1,500 feet in an easterly direction to the place of beginning;

all in Jefferson County, Oregon.

The Operator holds title to the above-described property by a lease with option to purchase.

History, Production and Facilities

The area in the vicinity of the mine was first prospected in the early 1860's, mainly for gold and silver.

In 1933 the Horse Heaven mercury deposit was discovered which led to the investigation of the mercury potential of the Axehandle property. It is reported that commercial quantities of mercury ore were found by L. C. Swanson and Charles Swanson in 1935 at the No. 1 shaft site and other scattered localities around Axehandle Butte (pl. 1).

In 1936, adit No. 1 was driven to crosscut the ore and a small Champion-type rotary retort was installed. Only a few flasks of mercury was produced.

In 1938, Horse Heaven Mines, Inc. leased the property and developed it on the 45 and 75 levels from the No. 1 shaft. The ore was trucked to the Horse Heaven furnace. The company gave up the lease in 1940 because of the low price for mercury.

In 1940, Guy Wharton, L. C. Swanson and Danny Swanson purchased the mineral rights and installed a 25-ton Lacey rotary furnace. In 1943, Wharton purchased the Swansons' interests and operated a few months. He had to shut down for lack of labor and the workings were allowed to cave and flood.

There was no other activity at the property until the applicant for DMEA assistance did some bulldozing in the spring of 1957.

The total production from the property during the period 1937-1943 was reported to be 144 flasks of mercury.

The mine workings are all caved or flooded. There are a few dilapidated old frame buildings, all of which are beyond repair except for one which could be used for a small storehouse. There is no equipment on the property.

GEOLOGY

The geology and mercury deposits of the Horse Heaven District and the Axehandle mine are described by A. C. Waters and others in "Quicksilver deposits of the Horse Heaven Mining District, Oregon," U. S. Geological Survey Bulletin 969-E, 1951.

Rocks in the area are andesitic flows, tuffs, and tuffaceous sedimentary rocks of the Clarno formation of Eocene age. After moderate deformation and erosion these rocks were covered by a series of basaltic andesites followed by biotite rhyolite flows and pyroclastics and finally, in the southern part of the area, by flows of augite andesite. Mercury deposits are associated with volcanic plugs; four of them, including the Horse Heaven deposit, occur in or near autobrecciated plugs of biotite rhyolite. At the Axehandle mine the deposits are in altered andesite flow rocks along or near the margins of a generally unaltered andesite plug.

Although the deposits in general have a close relationship to volcanic plugs, individual ore shoots are controlled by various combinations of smaller structural features. Hydrothermally altered portions of plugs and adjacent wall rocks are more favorable hosts to ore deposition than unaltered rocks. In general, the permeable zones such as autobrecciated portions of plugs and dikes, or breccia along faults that cut plugs or wall rocks, are favorable environments for ore deposition. Particularly rich ore has been found in breccias just beneath cappings of clay. The clay may be soil formed on a surface of unconformity, it may be the result of hydrothermal alteration, it may be gouge along faults, or it may be bedded deposits of tuffaceous clay or fine-grained tuff.

The core of Axehandle Butte is a resistant plug of fine-grained augite andesite that has been pushed up through flows of porphyritic andesite (pl. 1). The plug is irregular in outline but in general is elongated in a northeasterly direction, nearly parallel to the principal direction of shearing in the area and pitches 40°-45° westward. About 1,000 feet northwesterly there is a smaller plug of augite andesite that pitches about 45° eastward, presumably joining the larger plug below the surface.

The andesite plug at the Axehandle mine is unaltered except close to the contact; most of the surrounding andesite flow rock is thoroughly altered. Hydrothermal alteration is most intense at five localities: the No. 1 shaft area; the New Strike, P-15-B, No. 2 shaft area; the Dead End shaft area; the Randolf adit-Guy Wharton prospect area; and the Red Jacket area (pl. 1).

In the No. 1 shaft area porphyritic andesite flows are entirely altered to light-colored clay along a mineralized shear zone which trends N. 85° W. and ranges in dip from 18° S. to 62° S. The zone is cut by normal faults of slight to moderate displacement that strike about N. 30° E. and dip 50°-70° SE. Cinnabar occurs within the zone as impregnations in the clay and in seams and veinlets. The width of the mineralized portion of the zone ranges from 3 to 10 feet and averages about 5 feet. The amount of the production from this zone is not known but is probably on the order of 70 flasks.

In the New Strike, P-15-B, No. 2 shaft area mercury is found along a highly altered zone that closely follows the contact between the intrusive andesite and the porphyritic andesite. Cinnabar occurs as disseminated particles and as veinlets in both the altered intrusive and flow andesites, but most of the ore grade material is in the latter. The P-15-B and No. 2 shaft workings are in the andesite flows. The P-15-B shaft reportedly yielded most of the 43 flasks reported during 1943; the No. 2 shaft was collared in ore but passed beneath it at a depth of 15 feet. Bulldozer cuts in the vicinity of the New Strike expose a hard brecciated and silicified structure that strikes S. 35° E. and dips 60° S. The surrounding andesite flow rocks are highly altered and contain cinnabar as disseminated particles and veinlets.

In the Dead End shaft area there is a zone of high alteration along the intrusive flow-andesite contact. The Dead End shaft was reportedly sunk on a pipelike body of ore to a depth of 40 feet. Waters and others (1951) state that a short drift from the bottom of the shaft encountered good ore beneath the contact which had flattened considerably.

Although little is known concerning the Randolph adit-Guy Wharton prospect area, as the old workings are caved, a small amount of trenching has disclosed a zone of altered flow andesite containing disseminated cinnabar which may have a length of 1,000 feet or more.

In the Red Jacket area there is a silicified shear zone in flow andesite that trends southeasterly across the north end of the property. The zone dips steeply to the north. In 1900 and 1901 about 1,000 feet of adits and shallow shafts were dug and some gold and silver was found, but there is no record of the production. In the late 1930's some of the workings were reopened to search for mercury ore. Several small pockets of dark-gray, antimony-bearing cinnabar were discovered and a few flasks are reported to have been produced.

THE PROJECT

The property is in an area from which mercury has been mined in some quantity, 15,097 flasks having been produced from the Horse Heaven mine 5 miles to the east. The geologic environment is similar to that at the Horse Heaven mine, and some 144 flasks of mercury had been produced from the Axehandle property. There are at least five mercury-bearing zones on the property, three of which seemed to be worthy of limited exploration.

The applicant proposed to explore the property by 12 dozer trenches, 12,420 feet of percussion drilling in 108 holes, and 2 100-foot drifts. His total estimated cost of the project, including repairs to buildings, supervision, equipment rental, assaying, etc. was $75,925.30.

The applicant's proposed trenching covered too extensive an area. The recommended trenching was confined to three of the most favorable areas, the New Strike, P-15-B, No. 2 shaft area, the No. 1 shaft area, and the Deadman shaft area (pl. 1).

Churn drilling was recommended in favor of percussion drilling in view of past experience with percussion drilling in this type of rock.

The field engineers discussed the proposed project with the applicant and recommended a program which was acceptable to him. The exploration contract, dated August 21, 1957, authorized the following work:

100 hours bulldozing
1600 feet churn drilling
150 assays
150 drying samples
1600 feet incidental allowance

There were two minor amendments to the contract, changing the starting date of the work from February 15, 1958 to April 1, 1958 and then from April 1, 1958 to on or before May 15, 1958.

The trenching phase of the project started April 27, 1958 and was completed by June 15. The trenches shown on plate 1 exposed the altered zone in the areas that were to be drilled. Only small amounts of mercury ore were found in the trenches. The ore was very fine-grained, often necessitated a hand lens for detection, and in many instances was "paint."

The churn drilling phase of the project was started on April 29 and was completed by July 2. Eight holes totaling 1,338 feet were drilled under the terms of the contract. Logs of the drill holes are included with the Operator's final report.

The drilling was as unsuccessful as the trenching in finding a significant occurrence of mercury ore.

There are no ore reserves and it is improbable that there will be any production from this property.

Summary of Factual Data

The following tabulation shows the work items, units authorized and approved, unit cost, and total cost:

	Units Authorized	Units Approved	Unit Cost	Total Cost
Bulldozing	100 hrs.	100 hrs.	$15.00/hr.	$1,500.00
Churn drilling	1600 ft.	1338 ft.	3.45/ft.	4,616.10
Chemical assays	150	7	4.00/ea.	28.00
Drying samples	150	41	1.60/ea.	65.60
Incidental allowance per foot drilled	1600 ft.	1338 ft.	1.60/ft.	2,140.80
Total accepted costs of project				$8,350.50 1/
Total amount of contract			$10,420.00	
Government's share at 75 percent			7,815.00	
Total amount expended			8,350.50 1/	
Government participation			6,262.88	
Total amount unexpended			2,069.50	
Government's share unexpended			1,552.12	
Net value of production during contract period			none	

1/ Subject to audit.

The Government acquired no equity in equipment used on the project.

Discussion of Conclusions

The project work included bulldozing tranches and churn drilling. The bulldozing was handicapped by wet weather; the soil became very muddy making it hard to move equipment.

The churn drilling was reported to be satisfactory except that when basalt boulders were encountered the drilling rate was slower. One hole was abandoned at 42 feet because of basalt rubble and boulders.

The Operator's greatest difficulty appeared to be invoicing in a satisfactory manner the work that was performed by the contractor who conducted the project work and reportedly furnished the financing. The contractor completed the work set forth in the contract and performed additional trenching and drilling to exhaust other indicated possibilities of finding an ore body.

The contract work was completed satisfactorily, and there are no remaining targets on the property that indicate further exploration is warranted.

Only small amounts of cinnabar as very small, sparsely disseminated specks and as "paint" on some of the joint faces were found in the trenches and drill holes. No reserves can be estimated on the basis of the contract work.

Enclosures

Distribution:
ONE (3)
USBM (5)
USGS (SRO)
Docket
MacLaren

FIELD TEAM FINAL REPORT
REGION I
INTERNATIONAL ENGR. & MINING CO.
CONTRACT IDM-E1123

OFFICIAL FILE COPY
O. M. E.
APR 17 1959

DATE	INITIALS	CODE
4/17	C	220
4/17	WSM	400
	Memorandum	

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

April 16, 1959

To: W. S. Martin, Office of Minerals Exploration

From: Assistant Chief, Branch of Base Metals

Subject: Field Team final report, Docket No. DMEA 4641 (mercury) International Engineering and Mining Company. Axehandle Mine, Jefferson County, Oregon. Contract No. Idm-E1123 $8,350.50

The report by Erickson and MacLaren which described the exploration project at the subject property has been reviewed and found satisfactory.

I concur with the recommendation of the Field Team that a Certificate of Discovery or Development is not warranted.

J. W. Pennington

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

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/7	Talbert	800
4/8	C	220
4/8	WSM	400

Via Air Mail

To: George Mayor, OSE Auditor

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

Subject: Docket No. DMEA-4641 (Mercury)
International Engineering and Mining Company
Contract No. Idm-E1123

Your recently submitted Audit Report and Certificate covering the subject contract are accepted and distribution is authorized.

For your future guidance I would like to point out that there are several statements in your audit report which are not technically correct. The errors are not deemed of sufficient importance, however, to justify the rewriting of this report.

In the last paragraph of page 2 and the next to last paragraph on page 5 the estimated cost of $5,520.00 for churn drilling is stated as being a "maximum". According to Article 6(a) of the contract only the unit cost of $3.45 a foot and the $7,020.00 total of the category (bulldozing and drilling) are maximums. The work specifications, however, make the number of holes, the depth of each hole, and the total footage in work items 2 and 4 "maximums".

On pages 4, 5, and 6 the cost of Sampling and Analysis and Drying Samples are listed under Category (7) Miscellaneous. These costs, according to the contract are properly for classification as Fixed Unit Costs in the same manner as the Incidental Allowance.

A copy of this memorandum is being sent to Mr. Weissenborn for his information.

EDTalbert/GMcC
April 7, 1959

cc: Docket
Director's Reading File
Mr. Talbert

8623

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 3 1959

DATE	INITIALS	CODE
4/3	C	220
4/3	WSM	400

No. 157 Howard Street
Spokane 8, Washington

April 1, 1959

Mr. John D. Hoffman
P. O. Box 835
500 Santa Barbara Avenue
San Luis Obispo, California

Re: Docket No. [illegible] - Mercury
International Engineering & Mining Co.
Anaconda Mine
Jefferson County, Oregon
Contract No. Idm-81123

Dear Mr. Hoffman:

Thank you for your letter of March 25, 1959 informing us that you and Mr. Mavor are in agreement with the costs that can be allowed under the contract.

You were correctly advised that the Government is interested in knowing the total costs of a project even though they exceed the costs authorized in the contract, as that is the only means we have of checking our estimates.

The contract clearly specifies the maximum number and depth of holes that were to be drilled in each specified area. Although these specifications were not adhered to, the total drilling did not exceed the total authorized by very much. Our field men discussed this with you during their inspection on July 21, 1958. They told you they would request an amendment to change the maximum depth to which holes could be drilled. The request was not approved.

When we receive Mr. Mavor's audit we will release the funds due International Engineering and Mining Company.

Thank you for your help in straightening out the account.

By Field Team Region I

cc: Frank Sylvester
P. O. Box 278
Santa Barbara, Cal.

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

✓OME (3) w/incoming
USBM (2)
USBM(AD)

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

JOH[illegible]

520 S[illegible]

San L[illegible]

[illegible]

[illegible] we [illegible] are in [illegible] by [illegible]

[illegible] for July, 19[illegible] figures [illegible] information [illegible]

[illegible] the above property at my expense [illegible] your office.

[illegible] we were not informed of [illegible] the [illegible] was not allowed when your [illegible] My [illegible] was that certain [illegible] I will make no dispute of the disallowed [illegible] re-open the matter if I received [illegible] information [illegible] to it.

As I explained in my letter of October 17, 19[illegible], I am writing this letter for the benefit of the International Engineering and Mining Company since I am more familiar with the details than they. I am sending forward a copy of this letter to Mr. Sylvester, asking that he sign it as approved.

If I can be of further service to you in this matter, please let me know. I wish to thank you for your courtesy and for the pleasure of working with Mr. Mavor in straightning out this long standing account.

Approved ./s/. Frank S. Sylvester...
Int. Eng. & Mining Co.
Frank Sylvester, Pres.

Very truly yours,

JDH/mm

cc: George Mavor, OME Auditor
Jay L. Chambers, OME Audit Div.
Frank Sylvester

RECEIVED
MAR 30 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 3 1959

DATE	INITIALS	CODE
4/3	C	220
4/3	WSM	400

So. 157 Howard Street
Spokane 4, Washington

April 1, 1959

Re: Docket No. DMEA-4641 (Mercury)
International Engineering & Mining Co.
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-E1123

Mr. Sumner C. Rodriguez
Overmulse & Rodriguez
Turner Building
Madras, Oregon

Dear Mr. Rodriguez:

We are presently making an audit of the DMEA contract to which you refer in your letter of March 27, 1959. This contract is between the Government and International Engineering and Mining Company, P. O. Box 278, Santa Barbara, California. Presumably Mr. Hoffman performed the work for International Engineering and Mining Company as sub-contractor or under some other agreement.

As soon as our audit is complete we will release the funds due to International Engineering and Mining Company. No funds will be paid by this office directly to Mr. Hoffman as we have no contract with him. Whether or not International has already paid Mr. Hoffman or, if not, when they will pay him we do not know.

By Field Team Region 1

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

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

cc: OME (3) w/incoming
USGM (2)
USBM(AD)

JOHN B. OVERHULSE
SUMNER C. RODRIGUEZ

RECEIVED
BUREAU OF MINES
MAR 30 1959
SPOKANE, WASH.

LAW OFFICES
OVERHULSE & RODRIGUEZ
TURNER BUILDING
MADRAS, OREGON

March 27, 1959

Mr. A. E. Weissenborn
U. S. Geological Survey
1201 N. Division Street
Spokane 2, Washington

Dear Sir:

Mr. Bert Abrams has contacted me again with regard to the drilling on the Ashwood property for Mr. Hoffman.

Apparently, you still have not made payment on the government claim. Mr. Hoffman is trying to get Abrams to make a settlement with him. I wonder if we could get an assignment that would be honored through your office.

My thought was this. If you could tell me approximately when the matter would be settled, so Mr. Abrams could count on getting his money for sure, we could then, with your approval, make an assignment from Mr. Hoffman to Mr. Abrams. Mr. Abrams would then take that in settlement of the claim.

Perhaps this would make it easier for you to settle with Hoffman. I don't know.

If there is a holdup on the thing or there is something wrong with it, we would appreciate knowing, because we have been hearing one story from one party and another story from another party. Now they claim there is something wrong with about 272 feet of hole.

I don't see how that should be Mr. Abrams responsibility and I don't really think Mr. Hoffman has been trying to put it off on him.

Anything you can do to tell us the easy way to get this matter settled without inconvenience to anyone would be more than welcome. I hope that you could give us the time an assignment could be effective and the assurance that such an assignment could be accepted by your bureau. Also, if you have any requirements in the assignments or any forms, you can send them to me and we can then get in touch with Mr. Hoffman.

We are expecting a letter from Mr. Hoffman shortly, perhaps at that time I will have more information.

Very truly yours,

OVERHULSE & RODRIGUEZ

Sumner C. Rodriguez

SCR/cp

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

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 30 1959

DATE	INITIALS	CODE
3/30	C	220
3/30	[illegible]	800
3/30	WSM	400

March 25, 1959

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

Re: Docket No. DMEA-4641 (Mercury)
International Engineering & Mining Co.
Axe Handle Mine
Jefferson County, Oregon
Contract No. Idm-E1123

Dear Mr. Selfridge:

Enclosed are the original and one copy of the Operator's final report on a project at the Axe Handle Mine, Jefferson County, Oregon, which is acceptable to the Field Team.

Only small amounts of cinnabar as very fine sparsely disseminated specks were found in the trenches and the drill holes. No reserves can be estimated and therefore it is recommended that no certification be made.

By Field Team Region I

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

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

Enclosure 1 (in dupl.)

Operator's Final Report

RECEIVED
BUREAU OF MINES
FEB 19 1959
SPOKANE, WASH.

Re: Docket No. DMEA-4641 (mercury)
International Engineering & Mining Co.
Contract No. Idm-E1123

OPR. FINAL RPT.

FIELD REPORT AXE HANDLE MINE
HORSE HEAVEN DISTRICT
JEFFERSON COUNTY, OREGON

It has not been clearly established by previous mining or work done under this program, what the ore control or structure control consists of at the Axe Handle Mine. Due to observations at other properties in the area it has been thought that the volcanic plug is the structural control. The other alternative is, that the ore formed at a much earlier time. Probably during the deposition of what we encounter now as hydrothermally altered andesite. The plugs later intruding and generally covering, changing and locally disturbing the altered andesite. The changing strike, dip and lack of continuity of veins tend to bear this out.

The main workings at the Axe Handle Mine being in altered andesite and away from the volcanic plug also give credenceto this theory. Ore that occurs marginal to the basalt plug appears as a paint or coating on brecciated, unaltered andesite and not within the plug material. One other occurence of cinnabar revealed by drilling should be noted, however.

Cinnabar was found in trace quantities combined with iron sulphides and rhyolite between sixty five and eighty feet in drill hole No. 7 adjacent to shaft No. 2.. The cinnabar crystals are not plentiful, but are large as are the iron sulphide crystals, further discussion of these findings are taken up at the end of this report.

The only producing mine in the area that has had enough work to prove control, is the Horse Heaven Mine and since this ore was mined adjacent to a rhyolite plug, it follows that the rhyolite is more favorable for ore control than basalt plugs or andesitic flows, unfortunately, rhyolitic plugs are not plentiful in the area.

It is the opinion of this writer that the geology of the Axe Handle Mine in a local sense is as follows:

Early deposition of andesite (hydrothermally altered). Later flows of andesite partially covering the altered andesite or completely covering it with later eroding away of sections. The last or youngest action being intrusions of basaltic plugs. The brecciated rhyolite in most cases failed to reach the surface which indicates a cooler weaker mass that controls the ore. The ore solutions gained entry here which indicates the rhyolite formed second or third in the above sequence of events.

Inasmuch as cinnabar was found in conjunction with iron sulphides and rhyolite, my recommendation to any future operator is to deepen existing holes or in the event of plotting new holes, to drill to greater depths wherever the rhyolite is encountered. If any possible contact and control structure has been proven by our work, I believe this to be it.

As far as the prospector is concerned, a favorable place to prospect would be the south east side of Axe Handle Butte at lower elevations than the basaltic rubble that occurs there. The intrusive may have split a former rhyolite plug and forced it near enough to the surface to be found with a pick and shovel. In this event, cinnabar may very well be found within the rhyolite.

July 28, 1958

James Moore

James Moore

SUMMARY OF EXPLORATION WORK AXE HANDLE MINE, ORE.

The work performed by TD18 with ripper tooth progressed in a satisfactory manner and was finished in a satisfactory manner. Some inclement weather during May made conditions disagreeable, but did not hamper operations to any great degree. The excessive amount of work performed in regards to the bulldozer in the form of benching, open cuts, etc. was done in a sincere effort to find a commercial ore body. We did not proceed with additional work until D. M. E. A. proposals were completed.

The equipment performed the required work in a normal manner and progressed as well as can be expected considering the mud that prevailed during wet weather.

Drilling was at its best in altered andesite. Some time loss experienced in fractured basalt. Casing and cementing of hole required in holes 2, 3, 4, 5, and 6. Churn drillig as proposed by D. M. E. A. Seems to be the way to drill this ground although any type of drilling could be used in altered andesite, drilling conditions are ideal in altered andesite.

SAMPLING - AXE HANDLE MINE, ORE.

The cuttings from the holes were poured into boxes for drying. Wet sampling was done by panning as the cuttings were poured into the boxes. After drying, the dried cuttings were quartered in the usual manner and were again inspected and panned for indentification of the material and logged accordingly, the portions of the holes that showed cinnabar were sampled every five feet and the material sent to Abbot Hanks, Inc. for assay. Duplicate assay material is available at the Axe Handle Mine.

We also dried, and quartered samples from all of the holesfor future reference as follows:

Approximately four pounds of material was quartered, ground and saved representing the first, second and third sections of each hole.

EXAMPLE - 4 lbs. 0'-25')
" 25'-50') Hole #1
" 50'-75')

All of the samples are in storage at the Axe Handle Mine. Instructions as to the deposition of same will be appreciated.

NARRATIVE COVERING DOZER WORK APR. 27-JUNE 1st

TD18 Dozer rented from Howard Cooper Corp., Portland, Ore. transported to Ashwood. Dozer walked from Ashwood to Axe Handle Mine because of 15 ton load limit on bridge at Ashwood, walking distance six miles.

Work begun on first bench April 27. Benching and access roads to benches progressive with no difficulty on first six benches. Trouble encountered at Dead End Shaft area in moving rocks Basaltic plug material. Work progress somewhat slower. A ripper tooth installed on blade May 6 in order to bring dozer progress back to normal. Benches 7, 8 and 9 completed by May 15th.

Dozer worked area shown on overlay as Benches 13, 16 and 17 and 18 to try and determine contact between basaltic plug and altered andesite. Benching and cross trenching in this rock, covered last half of May. Some of this work is now hidden by benches placed to provide for drill sites as proposed by D. M. E. A. drill program.

JUNE 1-15th

During this two week period benches 10, 11 and 12 were completed both to explore and provide for future drill sites.

Two exploratory cuts were also made. No. 1 was decided upon to try and find a contact or change in formation. The cut was made at right angle to the contours for this purpose. Formation remained the same with no showings of ore.

No. 2 was made at the edge of Mesa to try and cut through loose plug material. The alluvial is too deep here to penetrate with a dozer.

Dozer moved out on June 15th to be transported back to Portland. Total hours worked by operator-396.

NARRATIVE COVERING DRILLING APRIL 29-JUNE 1st

Churn drill arrived on property 10 AM April 29th and spudded in Hole 1. Drilling progressed to 50' in altered andesite. Completed hole April 30th and drilled 15' on hole 2. This hole not completed until May 8th. Loose boulders and ravelling caused considerable trouble. It became necessary to bring in casing and case hole. The last ten feet required 10 gallons of water per foot. Double the normal amount.

No. 3 hole drilled in altered andesite. Water came in at 50' level. Hole drilled to 75'. The water rose to 35' level by following morning. No ore despite the close proximity to dead end shaft. Hole completed May 9th.

Spudded in Hole 4 AM May 10th. Drilled through Basaltic boulders. Loose boulder stopped driller at 32'. Driller returned May 13th with casing and powder. Blasted boulder in order to case the hole. Same trouble at 40'. This time the blast ruined the casing and hole was abandoned.

Had trouble starting Hole 5 in loose basaltic rock. Made 8' May 15th. 20' on May 16th - 28' on May 17th. Returned to job on 21st- made 4' more. Made 17' - May 22nd - Drilled to a total depth of 102: Hole completed on May 28th . Did not penetrate the Basaltic plug material.

Hole 6 - First 20' through plug and into altered andesite. Completed 95' of hole on May 29th. Lost 40' feet of hole during the night. Had to bail out. Completed hole. Altered andesite - no cinnabar. Hole completed May 30th.

Drilling completed April 29 to June 1, 1958:

Hole #1	75 feet
Hole #2	150 "
Hole #3	75 "
Hole #4	Abandoned
Hole #5	102 feet
Hole #6	125 "
Total	527 Feet Drilled

NARRATIVE COVERING DRILLING JUNE 1st - JULY 2nd

Driller arrived on job June 3rd and spudded in Hole 7. Drilled 8'.

June 4th. Cut through plug material into altered andesite at 19'. Broke down.

D. M. E. A. Field team arrived for routine inspection.

Driller resumed drilling June 8th. Heavy iron sulphides and some cinnabar in pannings from 65' to 80. Sulphides continued to 125' Completed hole 7 June 9th.

Hole 8, 0' - 10' Basaltic plug material 10' - 125' altered andesite. small amount of iron sulphides 85' to 125'.

Hole 9, 0' - 20' appeared to be a mixture of altered andesite and some basalt. Hit the basalt plug at 20' so we pulled off of the hole at 60'.

Hole 10, All in altered andesite with small amounts of iron oxide showing.

Hole 11, All in altered andesite with heavy iron sulphides showing at bottom. Due to proximity of P15B and ore showing with sulphides in hole 7 we drilled to 150' where sulphides decreased. No cinnabar below 20' - Trace from 0' - 20'.

Hole 12, Hit iron sulphides here and drilled to 150' level again in hopes of finding ore. All the way in altered andesite.

Hole13, This hole was plotted to cut through plug and pick up ore that should exist as an extension of dead end shaft workings. Contact expected to be reached at about 45'. The hole actually drilled to 75' all in plug material.

Hole 14, Once again the iron sulphides were heavy so we drilled to 150' where again they decreased. In spite of close proximity to Dead End Shaft we found no trace of ore.

Hole 15, Site for this hole pitched because of stringer of cinnabar showing directional to the main workings of previous owners. Nothing ~~of main workings of previous owners~~ of commercial grade. Iron sulphides appeared at 100' so we completed drill program. Still no ore with sulphides.. Hole drilled to 138' completed on July 2nd 1958.

JOHN D. HOFFMANN
P. O. Box 835
520 Santa Barbara Avenue
San Luis Obispo, California

Mining and Milling

Telephone Liberty 3-7149

DESCRIPTION OF DRILL HOLES AXE HANDLE MINE

Hole #	
1	The first fifty feet of drill cuttings show altered andesite. Some iron oxides. The last twenty five feet show iron sulphides - traces of cinnabar.
2	The first fifty feet of hole drilled through boulders. The last one hundred feet in altered andesite. Some iron oxide stain. No sulphides. No cinnabar.
3	Drilled in altered andesite to sixty five feet. Sixty five to seventy in blue clay which was gangue at bottom of dead-end shaft. No cinabar in cuttings. Water at fifty feet. Rose to 35" level.
4	This hole drilled to forty feet. Driller sheared off casing and abandoned hole. Cutings show alluvial all the way. Some oxides and sulphides of iron in pannings. Some water at 35'.
5	Hole drilled to one hundred two feet. All through basalt. Some water from fifty feet on down.
6	Drilled through 20' of basalt. Altered andesite 20' to 65'. Then 3' of blue clay. 68' to 125' altered andesite. Some iron oxides.
7	Altered andesite to 65'. From 65' to 80' - iron sulphides and cinnabar 1.5 lbs per ton. 80' to 125' iron. sulphides.
8	Overburden (basalt) first ten feet. Ten to 85' altered andesite. 85' to 125' iron sulphides. no cinnabar. some water at 50'.
9	o' to 4' alluvial - 4' to 24' brown andesite unaltered. 24' to 60' in basalt. Discontinued drilling. Obviously
10	in the basalt plug. Some water at 50' altered andesite brown in color to 100' some iron oxides. 100' to 125' andesite grey with iron sulphiedes. No water.

11 0' to 20' traces of cinnabar in altered andesite. Color brown 0' to 100' grey from 100' to 150' with iron sulphides. No water.

12 0' to 25' light brown altered andesite with iron oxides. 25' to 75' dark brown altered andesite with iron oxides. 75' to 125' grey with iron sulphides. Andesite became hard 111' to 125'. No water.

13 This hole drilled to 75' . All in basalt.

14 0' to 85' brown andesite with iron oxides. 85' to 130' grey andesite. With iron oxides. 130' to 150' grey andesite with iron sulphides.

15 0' to 70' brown andesite. 70' to 138' grey andesite with iron sulphides/

REMARKS TO ACCOMPANY LOG OF BENCHES AND CUTS:

1. Altered Andesite.

2. Altered Andesite.

3. Rubble - Plug Material.

4. Altered Andesite.

5. Altered Andesite.

6. Altered Andesite.

7. Altered Andesite.

8. Plug Material - Traces of Cinnabar as Paint in Fractures, not of commercial value.

9. Northern half of cut in altered andesite. Southern half in plug material. Contact nearly vertical.

10. Altered Andesite.

11. Altered Andesite.

12. Altered Andesite.

13. First 200' of B13 starting from road to north of shaft #2 is in altered andesite. Balance of bench in plug material.

14. Altered Andesite.

15. Altered Andesite.

16. Plug Material.

17. Plug Material.

18. Plug Material.

NO. BENCHES FOR EXPLORATION AND DRILLING.

	AV. LENGTH	WIDTH	DEPTH
1	279'	10'	4'
2	213'	60'	4'
3	200'	12'	3'
4	125'	15'	2'
5	100'	20'	4'
6	270'	15'	3'
7	144'	48'	12'
8	120'	15'	3'
9	400'	20'	8'
10	480'	15'	3'
11	1300'	20'	4'
12	795'	20'	4'
13	1000'	15'	3'
14	345'	50'	3'
15	264'	24'	4'
16	300'	25'	7'
17	600'	20'	3'
18	450'	15'	4'

EXPLORATORY OPEN CUTS

1	300'	9'	2'	Altered andesite
2	180'	21'	8'	This cut all in alluvial

No Contact Uncovered

Cy sent to 800

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 19 1959

DATE	INITIALS	CODE
3/19		
3/19	WSM	220
		400

1201 N. Division St.
Spokane 2, Washington

March 12, 1959

CERTIFIED MAIL

Mr. George Mayer, OME Auditor
Room 400, Custom House
555 Battery Street
San Francisco, California

Re: Docket No. DMEA-1641 (mercury)
Ambrandle Mine
Jefferson County, Oregon
Contract No. Ida-21183

Dear Mr. Mayer:

Enclosed herewith is a memorandum from the Field Team, Region I, requesting Final Audit of the subject contract. In addition, we are transmitting the following material needed to complete your audit:

1. Contract and Correspondence File (Includes original contract, Annex I and II, Exhibit "A", and Amendments Nos. 1 and 2)

2. MF-104 and 104A for May 1958, and MF-104 and 104A for July 1958, with attachments

There have been no payments made to the Operator. The vouchers have been tentatively completed in line with the units of work accepted by the Field Team.

Sincerely yours,

Dorothy F. Long
Authorized Certifying Officer

Enclosures

cc: Mr. Chambers
OME (2)
USGS (2)
USBM (AD)

1201 N. Division St.
Spokane 2, Washington

March 11, 1959

Mr. George Maver, OME Auditor
Room 420, Custom House
555 Battery Street
San Francisco 11, Calif.

Re: Docket No. [illegible]-4641 (mercury)
International Engineering & Mining Co.
Ambendle Mine
Jefferson County, Oregon
Contract No. [illegible]-21123

Dear Mr. Maver:

The work authorized under the referenced contract was completed by July 12, 1958; however, the winding up procedure has been delayed pending receipt of properly signed MF-104's.

The number of units of work satisfactorily completed by the Operator and accepted by the Field Team are:

Item	Authorized	Completed	
Bulldozing	100 hrs.	100 hrs.	1/
Churn drilling	1600 ft.	1338 ft.	2/
Chemical analyses	150	7	
Dry samples	150	41	
Incidental allowance	1600 ft.	1338 ft.	

1/ The bulldozing was done with a late model International TD-18 bulldozer while the contract specifies a D-8 bulldozer or equivalent. The TD-18 has 69 h.p. and the minimum D-8 h.p. is 95 so these tractors can be considered equivalent.

2/ New String, P-15-B and No. 2 Shaft Area

Hole No.	Depth	Reimbursable
5	102 ft.	none
6	125 ft.	125 ft.
7	125 ft.	125 ft.
8	125 ft.	125 ft.
9	60 ft.	none
10	125 ft.	125 ft.
11	150 ft.	125 ft.
12	125 ft.	125 ft.
	Total	750 ft.

Hole No. 12 was inadvertently omitted from the Final Inspection Report dated July 21, 1958.

No. 1 Shaft Area

Hole No.	Depth	Reimbursable
1	75 ft.	75 ft.
2	150 ft.	150 ft.
15	138 ft.	138 ft.
	Total	363 ft.

Road End Shaft Area

Hole No.	Depth	Reimbursable
3	75 ft.	75 ft.
13	75 ft.	75 ft.
14	150 ft.	75 ft.
	Total	225 ft.

Total feet reimbursable 1338 ft.

The Operator's final engineering and geological report was received on February 19, 1959. This report meets the requirement of Article 7(a) of the contract.

The Field Team final report will not recommend a Certification of Discovery or Development.

The Operator has not been reimbursed for any units of work completed.

A Final Audit is in order and requested.

In a letter dated October 17, 1958, Mr. John D. Hoffman states that he performed the exploration work for International Engineering on a cost plus basis. In support of his costs Mr. Hoffman submitted a list, dated August 1, 1958, of his expenses which, however, is not signed. It seems to us that if Mr. Hoffman's billing was signed by him, then it would become his invoice to International Engineering and the contract could then be audited and closed.

In view of the lack of interest shown by International Engineering we suggest that you go to San Luis Obispo, California and contact Mr. Hoffman personally as he would have all the invoices in his possession. If this cannot be done, we will have to refer the closing of the contract to Washington as it is doubtful that anything more can be accomplished by contacting the Operator.

By Field Team, Region I

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

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

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 2 1959

DATE	INITIALS	CODE
2/2	C	220
2/4	[illegible]	800
2/3	WSM	400

1201 E. Division St.
Spokane 2, Washington

CERTIFIED MAIL January 27, 1959

International Engineering and Mining Co.
P. O. Box 278
Santa Barbara, Calif.

Re: Docket No. [illegible]-4641 (mercury)
Knobsandle Mine
Jefferson County, Oregon
Contract No. [illegible]

Gentlemen:

We wrote you on July 23, September 8 and November 12, 1958 about the requirements for proper vouchering, etc. for work done under your [illegible] contract during the month of July 1958. To date we have not received the requested submittals.

We would like to receive this material as soon as possible so that we may proceed with closing out the contract.

By Field Team, Region I

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

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

cc: International Engr. & Mining Co.
106 W. Wyoming Avenue
Las Vegas, Nevada

OME (2)
USGS (2)
USBM (AD)

OFFICIAL FILE COPY O. M. E. RECEIVED NOV 17 1958		
DATE	INITIALS	CODE
11/17	C	220
11/17	[illegible]	800
11/17	[illegible]	400

1201 N. Division St.
Spokane 2, Washington

November 12, 1958

Mr. Frank S. Sylvester
International Engineering and Mining Co.
P. O. Box 278
Santa Barbara, Calif.

Re: Docket No. DMEA-4641 (Mercury)
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-81123

Dear Mr. Sylvester:

On September 16, 1958 you wrote us that revised forms MF-104 and MF-1844, together with information requested in our letter of July 29, would be forwarded without delay.

We would like to receive this material at the earliest possible date so that this account can be closed.

Sincerely yours,

Wing G. Agnew, Member
OME Field Team (successor to DMEA)
Region I

cc: OME (2)
USGS (2)
USBM (AD)

1201 N. Division St.
Spokane 2, Washington

October 21, 1958

Overhulse & Rodriguez
Turner Building
Madras, Oregon

Re: Docket No. [illegible]-4641 (mercury)
International Engineering & Mining Co.
Ambandle Mine
Jefferson County, Oregon
Contract No. Idm-81123

Gentlemen:

This is in reply to your letter of October 14, 1958, concerning the account under the subject contract.

The Operator under this contract has not yet been reimbursed for the work done as his billing was improperly made out. Mr. Frank S. Sylvester of International Engineering & Mining Company assured us that the correct billing would be submitted in the near future.

By Field Team, Region I

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

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

cc: OME (2)
USGS (2)
USBM (AD)

RECEIVED OCT 1958

DATE	INITIALS	CODE
10/28	C	220
10/28		800
10/29	WSM	400

LAW OFFICES
OVERHULSE & RODRIGUEZ
TURNER BUILDING
MADRAS, OREGON

October 14, 1958

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

Dear Mr. Weissenborn:

You will remember that approximately the 31st of July, 1958, I called you regarding your contract number IDME 1123. I was calling on behalf of Mr. Bert Abrams who had not been paid his final billing on that account.

We have had several assurances from International Engineering and Mining Company and also from John D. Hoffman, of San Luis Obispo, California, concerning payment of Mr. Abrams statement. To date, no payment has been made.

We would like to know the status of the account as far as you are concerned. Mr. Abrams statement for services is, of course, long overdue. If there is a good reason for the delay, Mr. Abrams will try to be patient, but both of us feel that he should be entitled to his money.

Could you please advise me whether or not you have settled your account with the International Engineering and Mining Company, and Mr. Hoffman.

Very truly yours,

OVERHULSE & RODRIGUEZ

Sumner C. Rodriguez

SCR/cp

RECEIVED
OCT 17 1958
U.S.G.S.

9/11	C	220
9/11		800
9/11	WSM	400

1201 N. Division St.
Spokane 2, Washington

September 8, 1958

Mr. Frank S. Sylvester
International Engineering and Mining Co.
P. O. Box 278
Santa Barbara, Calif.

Re: Docket No. DMEA-4641 (Mercury)
Axehandle Mine
Jefferson County, Oregon
Contract No. I[illegible]-[illegible]123

Dear Mr. Sylvester:

On July 23, 1958 we requested that you furnish us with certain information in order that we could proceed with processing your July 1958 voucher. At that time we also returned your forms MF-164 and MF-164A as they improperly showed John B. Kaffman as the Operator whereas International Engineering and Mining Company is the Operator.

We will appreciate receiving the information requested in our previous letter and the corrected MF-164 forms as soon as possible. We are enclosing another set of the forms for your convenience.

Sincerely yours,

S. W. Kaldok
for: Wing G. Agnew, Member
DMEA Field Team, Region I

Enclosure

cc: DMEA (2)
USGS (2)
USBM (AD)

OFFICIAL FILE COPY

Date	Surname	Code
8-21	Hopkins	400
8-21	Chapman	400
8-22	Chambers	800
8/22	[illegible]	130
"	Johnson	110
"	[illegible]	100
8/25	[illegible]	220
		400

AUG 22 1958

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

Re: Docket No. DMEA 4641 - Mercury
International Engineering and
Mining Company
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-E1123

Dear Mr. Reissenborn:

Reference is made to your letter of August 4, 1958, with attached memorandum of July 21, in which the field examiners recommend an amendment to the subject contract. We wish to thank you for your constructive comments on this recommendation.

Although the drilling was done in a competent manner, at this time, we can only concur in your interpretation of the contract regarding maximums.

We note the field examiners' comments on the use of a bulldozer smaller than specified in the contract. An amendment to the contract concerning this matter can be considered when we have received the details and your recommendations.

Please advise if the question of allowing the fixed cost for drying samples has been settled satisfactorily.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

APPROVED:

P. F. Yopes (HB)

Member, Bureau of Mines

N. E. Nelson (HB)

Member, Geological Survey

JHOPKINS/dlm 8-21-58

cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. I

Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

8623

RECEIVED AUG 11 1958		
DATE	INITIALS	CODE
8/11	J.g.	225
"	[illegible]	100
"	JEJ	110
		800
		400

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

August 4, 1958

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

Re: Docket No. DMEA-4641 (Mercury)
International Engineering &
Mining Co., Axehandle Mine
Jefferson County, Oregon
Contract Idm-E1123

Dear Mr. Selfridge:

Reference is made to the attached memorandum of July 21, 1958, concerning the inspection of the Axehandle property, by Albee, MacLaren, and Erickson. The examiners point out that 187 feet more of core drilling was done in the New Strike, P-15-B, No. 2 shaft area than provided for in the contract and that at the same time 187 less footage was drilled in the No. 1 shaft area than called for in the contract.

The examiners are in agreement that these deviations are reasonable and desirable and that an amendment be prepared to permit them. This recommendation does not include any recommendation for any footage over the total of 1,600 feet allowed in the contract. It is also pointed out in the report that two of the holes were over the maximum depth permitted by the contract.

It is unfortunate that the Operator did not follow the contract more closely. The Field Team agrees that the drilling was done in a competent manner and that the information obtained is as satisfactory as that which would have resulted had the contract been followed to the letter. Had there been no restrictions, we undoubtedly would have approved the drilling as it was done up to the 1,600 feet allowed by the contract. Nevertheless, the contract is very specific in establishing certain maximums which are not to be exceeded and therefore it appears to us that we are bound by the terms of the contract and must disallow the footages over the maximums stated in the contract.

By Field Team Region I

A. E. Weissenborn

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

Noted

Attachments

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

cc: USBM (2)
USBM(AD) Albee

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

July 21, 1958

DMEA
RECEIVED AUG 11
DATE | INITIALS | CODE
8/11 | J.g. | 225
100
110
800
400

MEMORANDUM

To: DMEA Field Team, Region I

From: Howard F. Albee, and D. R. MacLaren, Geologists, U. S. Geological Survey, and E. G. Erickson, Mining Engineer, U. S. Bureauoof Mines

Subject: Final Inspection Report, Docket No. DMEA-4641 (Mercury), International Engineering and Mining Company, Axehandle Mine, Jefferson County, Oregon, Contract No. Idm-E1123

The property was visited July 12, 1958, in company with James M. Moore, project engineer.

All work under the contract is completed and consists of stripping, trenching, benching, and churn drilling. Much more bulldozing was done than the allowed 100 hours, and 42 feet of drilling was done over the allowed 1,600 feet. The excess footage is from a 42-foot hole entirely in boulder rubble that could not be drilled to bedrock.

Under the contract the 1,600 feet of drilling was broken down into a maximum number of holes or a maximum footage for each of three areas. In the New Strike, P-15-B, No. 2 shaft area the maximum was 6 vertical holes to a maximum depth of 125 feet, or not to exceed a total of 750 feet of churn drilling. In the No. 1 shaft area, 4 holes were stipulated, 2 to a depth of 150 feet each and 2 to a depth of 125 feet each, or a total of 550 feet. In the Dead End shaft area the stipulation was to drill a maximum of 4 holes each to a maximum depth of 75 feet, or not to exceed a total of 300 feet.

The operator, however, drilled 8 holes in the New Strike, P-15-B, No. 2 shaft area for a total of 937 feet and 1 hole exceeded the maximum authorized depth by 25 feet. In the No. 1 shaft area, 3 holes were drilled for the maximum total of 300 feet.

Following is a tabulation showing the footages:

Location	Hole No.		Depth drilled
New Strike, P-15-B, No. 2 shaft area	5		102'
	6		125'
	7		125'
	8		125'
	9		60'
	10		125'
	11		150'
		Total drilled	937'
		Allow. max.	750'
		Over "	187'
Dead End Area	3		75'
	13		75'
	14		150'*
		Total drilled	300'
		Allow. max.	300' or 75'/hole
		*Over "	75' for hole 14
No. 1 Shaft Area	1		75'
	2		150'
	15		138'
		Total drilled	363'
		Allow. max.	550'
		Under "	187'

It is commonly hard to conduct a drilling program to the letter of the contract and when a change is required as indicated by drilling results, the Operator is not always able to contact the Field Team in time to continue the work. Inasmuch as the holes are located at points deemed satisfactory by the field examiners and as the drilling accomplished its purpose in a satisfactory manner, it is recommended that the completed holes be allowed as drilled and that an amendment be prepared to alter the maximums to comply with the footage as drilled in each area within the maximum grand total of 1,600 feet.

The Operator determined the mineralized sections of the churn drill holes by panning and only two holes, 7 and 11, were found to have mineralized sections containing mercury in sufficient quantities to

warrant assaying. The mineralized sections in holes 7 and 11 were between 65 feet to 80 feet and 0 foot to 20 feet, respectively, and the average mercury content was 1.2 and 0.8 pounds per ton.

Although no other mineralized sections were detected, the Operator kept a record of each hole drilled by drying the cuttings from sections representing about one-third of the length of each hole drilled. The cuttings were split down to about a 5-pound sample, which was sacked and tagged. There are 45 of these samples stored at the property. The question arises whether the Operator shall be allowed the fixed cost for drying these samples, although they were not assayed, and what should be done with these samples?

The Operator was not able to secure the size of dozer specified in the contract. Logging has been resumed in the area and D-8 dozers were reported to be renting for $18 to $20 an hour including operator, supplies, and maintenance. The Operator secured a smaller size dozer and had a ripper tooth made for it and it did the job satisfactorily. It may have taken more hours to do the job but the cost per hour should have been less. The Operator has been asked to submit the dozer costs and a price will be set when detailed costs are received.

The assay results of the 7 samples analyzed and inspection of the dozer cuts and the drill cuttings at the drill sites do not indicate a certification of discovery is warranted.

The status of the contract is:

Date of contract: August 21, 1957
Termination date: September 21, 1958
Contract amount: $10,420.00
Amount spent: None

Work item	Amount authorized by contract	Amount completed
Bulldozing	100 hours	100 hrs. 1/
Churn drilling	1,600 feet	1,600 ft. 1/
Chemical analyses	150 each	7 ea.
Drying samples	150 each	52 ea. 2/
Incidental allowance ($1.60/ft. of drilling approved)	1,600 feet	1,600 ft. 1/

1/ Subject to Government approval. Amendment necessary.
2/ Includes 7 samples that were assayed and 45 samples taken as a record of the holes drilled.

Attachments
Distribution:
DMEA (4) AD
USBM (2) Docket
Albee

NO. BENCHES FOR EXPLORATION AND DRILLING

	AV. LENGTH	WIDTH	DEPTH	
1	275'	10'	6'	
2	215'	60'	6'	
3	200'	20'	3'	
4	125'	20'	3'	
5	100'	30'	4'	
6	270'	15'	3'	
7	140'	40'	12'	
8	125'	50'	3'	
9	400'	25'	3'	
10	400'	15'	3'	
11	1200'	30'	6'	
12	770'	30'	4'	
13	1000'	50'	3'	
14	245'	30'	3'	
15	264'	30'	4'	
16	300'	30'	7'	
17	400'	30'	3'	
18	400'	15'	4'	
	EXPLORATORY OPEN CUTS			
1	300'	6'	3'	Altered andesite
2	100'	20'	6'	This one all in alluvial

No Contact Uncovered

REPORT OF ASSAY

ABBOT A. HANKS, INC.
ASSAYERS, CHEMISTS, ENGINEERS
624 Sacramento Street
San Francisco, California

July 2, 1958

Deposited By

John D. Hoffmann
778 Marsh Street
San Luis Obispo, Ca

LABTY. NO.	MARK	MERCURY
33152	Hole #7-75'-80'	0.05%
33153	Hole #7-70'-75'	0.07
33154	Hole #11-5'-10'	0.07
33133	Hole #7-65'-70'	0.07
33134	Hole #11-0'-5'	0.08
33135	Hole #11-10'-15'	0.01
33136	Hole #11-15'-20'	0.01

Martin P. Quis

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

APR 27 1959 O.M.E.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1958 Docket No. DMEA 4641 Contract No. IDM-E1123
Operator's Name International Engineering and Mining Company Minerals Mercury
Address Box 278, Santa Barbara, California
Contract Amount, $10,420.00 Government Participation: 75 % Amount, $7,815.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY (WSM 4/28/59): Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	4157.25	1362.75	5520.00	3253.35	1362.75	4616.10
Bulldozing	3623.12	975.00	4598.12	525.00	975.00	1500.00
Crosscutting						
Drifting						
incid. allow. drilling	1928.00	632.00	2560.00	1508.80	632.00	2140.80
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	372.00		372.00	28.00	—	28.00
Payroll Taxes						
Liability Insurance						
Drying Samples				65.60	—	65.60
(8) Contingencies (specify):						
TOTALS	10080.37	2,969.75	13050.12	5380.75	2969.75	8350.50

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 2-8-59 *Payee Int. Eng. & Mining Co.

Per Frank S. Sylvestri Title Pres.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 4035.56

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 4/21/59 Vou. No. 2291

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 1123 in accordance with the terms of the contract.

Signature 1st Eric G. Erickson Title Mining Engr. Date 3/12/59

APPROVAL BY ~~DMEA~~ OME EXECUTIVE OFFICER OR ALTERNATE:

Signature 1st A. E. Weissenborn Title Exec. Officer Date April 20, 1959

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(Rev. 11 1962)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1958 Docket No. DMEA 4641 Contract No. IDM-E1123
Operator's Name International Engineering and Mining Company Minerals Mercury
Address Box 278, Santa Barbara, California

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	ft	3253.35 ~~4157.25~~	943 ~~1,205~~	4676.10 ~~5520.00~~	1338 ~~1,600~~	3.45	1600 ft	3.45
Churn								
Auger								
Stripping	hrs.	525.00	35	1500.00	100		100 hr	15.00
Trenching	~~hrs.~~	~~3623.12~~	~~223~~	~~4598.12~~	~~288~~	15.95		
Test Pits								
Roads and Trails							1600	
incid. allow. drilling	ft	1508.80 ~~1,928.00~~	943 ~~1,205~~	2140.80 ~~2560.00~~	1338 ~~1,600~~	1.83*	ft	1.60
TOTAL DISTRIBUTED COSTS		5287.15 ~~9708.37~~		8256.90 ~~12,678.12~~				TOTAL COSTS AUTHORIZED BY CONTRACT
Drilling Samples								
~~Operating Equipment Purchased~~		65.60	41	65.60				
~~Initial Rehabilitation and Repairs~~								
New Buildings, Improvements, etc.		28.00	7	28.00				
~~Sample & Assay~~		~~372.00~~		~~372.00~~				
TOTAL COSTS		~~10,080.37~~ 5380.75		~~13,150.12~~ 8350.50				

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

Date July 15, 1958 Operator Int. Engineering & Mining Co.
Per Frank S. Sylvester Title Pres.

REMARKS: * - Includes Sample & Assay Allowance.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

/s/ E. G. Erickson, 3/12/59

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

JOHN D. HOFFMANN
P. O. Box 835
520 Santa Barbara Avenue
San Luis Obispo, California

Mining and Milling

Telephone Liberty 3-7149

August 1, 1980

International Engineering and Mining Co.
P. O. Box 270
Santa Barbara, California

DATE	NAME	EXPENSE	AMOUNT
4/16/80	Southwest Travel Service	Travel Expense	364.40
4/23	James Clausen	Ditto	150.00
4/29	Howard Cooper Corp.	Equip. Rental	600.00
5/12	Dort Abrams	Drilling	1145.40
5/13	Dad's Mobil Svc.	Travel Exp.	440.00
5/14	Howard Cooper Crp.	Equip. Rental	400.00
5/25	" " "	" "	607.20
5/26	Dort Abrams	Drilling	217.35
5/27	Spint	Maintenance	103.00
5/28	Union Oil	Gas & Fuel	109.51
5/29	Mrs. Clausen	Tel & Tel	16.75
5/29	James Moore	Travel Exp.	900.00
6/1	Houston Tool Co.	Maintenance	46.00
6/9	James Moore	Payroll	180.00
6/10	Swanson	Rent	1200.00
6/10	Union Oil	Gas & Fuel	65.01
6/19	Houston Tool Co.	Travel Exp.	101.01
6/19	" " "	Prof. Fee	50.00
6/30	Rolland Nixon	Gen. Exp.	106.85
6/30	Dort Abrams	Drilling	1321.60
6/30	Jim Moore	Gen. Exp.	250.00
6/30	Dort Abrams	Drilling	1587.00
7/7	Dort Abrams	Drilling	1292.35
7/9	Rolland Nixon	Gen. Exp.	181.30
7/9	Rolland Nixon	Payroll	1625.00
7/9	James Moore	"	442.50
7/9	Luther Hughes	"	600.00
4/26	Green Transfer	Equip. Move	200.25
6/19	Allied Tractor	Equipment	290.00
7/10	James Clausen	Payroll	1207.60
			15,191.02

August 1, 1958

International Engineering and Mining Co.

Total	15,131.02
plus 10% overhead	1,513.10
	16,644.12
plus 10% profit	1,664.41
	18,308.53

I hereby certify that this statement of account due from International Engineering and Mining Co. aggregating $18,308.53 is true and correct.

John D. Hoffmann

NARRATIVE COVERING DOZER WORK APR. 27-JUNE 1st

TD18 Dozer rented from Howard Cooper Corp., Portland, Ore. transported to Ashwood. Dozer walked from Ashwood to Axe Handle Mine because of 15 ton load limit on bridge at Ashwood, walking distance six miles.

Work begun on first bench April 27. Benching and access roads to benches progressive with no difficulty on first six benches. Trouble encountered at Dead End Shaft area in moving rocks Basaltic plug material. Work progress somewhat slower. A ripper tooth installed on blade May 6 in order to bring dozer progress back to normal. Benches 7, 8 and 9 completed by May 15th.

Dozer worked area shown on overlay as Benches 13, 16 and 17 and 18 to try and determine contact between basaltic plug and altered andesite. Benching and cross trenching in this rock, covered last half of May. Some of this work is now hidden by benches placed to provide for drill sites as proposed by D. M. E. A. drill program.

JUNE 1-15th

During this two week period benches 10, 11 and 12 were completed both to explore and provide for future drill sites.

Two exploratory cuts were also made. No. 1 was decided upon to try and find a contact or change in formation. The cut was made at right angle to the contours for this purpose. Formation remained the same with no showings of ore.

No. 2 was made at the edge of Mesa to try and cut through loose plug material. The alluvial is too deep here to penetrate with a dozer.

Dozer moved out on June 15th to be transported back to Portland. Total hours worked by operator-396.

NARRATIVE COVERING DRILLING APRIL 29-JUNE 1st

Churn drill arrived on property 10 AM April 29th and spudded in Hole 1. Drilling progressed to 50' in altered andesite. Completed hole April 30th and drilled 15' on hole 2. This hole not completed until May 8th. Loose boulders and ravelling caused considerable trouble. It became necessary to bring in casing and case hole. The last ten fee required 10 gallons of water per foot. Double the normal amount.

No. 3 hole drilled in altered andesite. Water came in at 50' level. Hole drilled to 75'. The water rose to 35' level by following morning. No ore despite the close proximity to dead end shaft. Hole completed May 9th.

Spudded in Hole 4 AM May 10th. Drilled through Basaltic boulders. Loose boulder stopped driller at 32'. Driller returned May 13th with casing and powder. Blasted boulder in order to case the hole. Same trouble at 40'. This time the blast ruined the casing and hole was abandoned.

Had trouble starting Hole 5 in loose basaltic rock. Made 8' May 15th. 20' on May 16th - 28' on May 17th. Returned to job on 21st- made 4' more. Made 17' - May 22nd - Drilled to a total depth of 102: Hole completed on May 28th . Did not penetrate the Basaltic plug material.

Hole 6 - First 20' through plug and into altered andesite. Completed 95' of hole on May 29th. Lost 40' feet of hole during the night. Had to bail out. Completed hole. Altered andesite - no cinnabar. Hole completed May 30th.

Drilling completed April 29 to June 1, 1958:

Hole #1	75 feet
Hole #2	150 "
Hole #3	75 "
Hole #4	Abandoned
Hole #5	102 feet
Hole #6	125 "
Total	527 Feet Drilled

NARRATIVE COVERING DRILLING JUNE 1st - JULY 2nd

Driller arrived on job June 3rd and spudded in Hole 7. Drilled 8'.

June 4th. Cut through plug material into altered andesite at 19'. Broke down.

D. M. E. A. Field team arrived for routine inspection.

Driller resumed drilling June 8th. Heavy iron sulphides and some cinnabar in pannings from 65' to 80. Sulphides continued to 125' Completed hole 7 June 9th.

Hole 8, 0' - 10' Basaltic plug material 10' - 125' altered andesite. small amount of iron sulphides 85' to 125'.

Hole 9, 0' - 20' appeared to be a mixture of altered andesite and some basalt. Hit the basalt plug at 20' so we pulled off of the hole at 60'.

Hole 10, All in altered andesite with small amounts of iron oxide showing.

Hole 11, All in altered andesite with heavy iron sulphides showing at bottom. Due to proximity of P15B and ore showing with sulphides in hole 7 we drilled to 150' where sulphides decreased. No cinnabar below 20' - Trace from 0' - 20'.

Hole 12, Hit iron sulphides here and drilled to 150' level again in hopes of finding ore. All the way in altered andesite.

Hole13, This hole was plotted to cut through plug and pick up ore that should exist as an extension of dead end shaft workings. Contact expected to be reached at about 45'. The hole actually drilled to 75' all in plug material.

Hole 14, Once again the iron sulphides were heavy so we drilled to 150' where again they decreased. In spite of close proximity to Dead End Shaft we found no trace of ore.

Hole 15, Site for this hole pitched because of stringer of cinnabar showing directional to the main workings of previous owners. Nothing ~~of main workings of previous xxxxxx~~ of commercial grade. Iron sulphides appeared at 100' so we completed drill program. Still no ore with sulphides.. Hole drilled to 138' completed on July 2nd 1958.

REPORT OF ASSAY

ABBOT A. HANKS, INC.
ASSAYERS, CHEMISTS, ENGINEERS
624 Sacramento Street
San Francisco, California

July 9, 1958

Deposited By

John D. Hoffmann
778 Marsh Street
San Luis Obispo, Calif.

LABTY. NO.	MARK	MERCURY
33052	Hole #7-75'-80'	0.05%
" 53	Hole #7-70'-75'	0.07
33054	Hole #11-5'-10'	0.07
33133	Hole #7-65'-70'	0.07
33134	Hole #11-0'-5'	0.08
33135	Hole #11-10'-15'	0.01
33136	Hole #11-15'-20'	0.01

Martin P. Quist

1201 N. Division St.
Spokane 2, Washington

July 23, 1958

1/28 C
7/28 220
800
VSM 400

Frank S. Sylvester
ernational Engineering and Mining Co.
O. Box 278
anta Barbara, California

Re: Docket No. DMEA-~~4641 (Mercury)~~
Axehandle Mine
Contract No. Idm-E1123
Monthly operating report for
July 1958

Dear Mr. Sylvester:

This will acknowledge receipt of your letter of July 17 enclosing your Operator's Monthly Report and Voucher, with attachments, for the month of July.

Before your vouchers can be processed for payment we will need invoices covering all work done under Independent Contracts for the bulldozing and drilling claimed on your May and July vouchers. This should include invoices for the bulldozer rental, specifying type of dozer and serial identification number; fuel oil used for dozer; for moving dozer, for the dozer tooth and any other items related to bulldozing. Also, we will need invoices from Mr. Hoffman covering the churn drilling, showing number of feet drilled and price per foot.

It is noted your MF-104 and MF-104A are made out to John D. Hoffman. These must be made to the Operator under the contract and, in this case, is International Engineering and Mining Company, P. O. Box 278, Santa Barbara, Calif. We are returning these forms for correction.

By Field Team, Region I

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

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

Enclosures
cc: DMEA (2)
USGS (2)

OFFICIAL FILE COPY
DMEA
RECEIVED
DATE JUL 7 1958
CODE

So. 157 Howard Street
Spokane 4, Washington
July 3, 1958

Air Mail

Mr. John Hoffman
P. O. Box 835
San Luis Obispo, California

Re: Docket No. DMEA-4641 (Mercury)
International Engineering & Mining Co.
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-E1123

Dear Mr. Hoffman:

I plan to leave the office on a round of inspections July 8, 1958. As nearly as I can tell now, I will visit the Axehandle property the 13th or 14th. In accordance with our recent telephone conversation, I trust it will be convenient for you to be on the property at that time.

Sincerely yours,

Donald R. MacLaren
Geologist

cc: DMEA(2)
USBM(2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

June 17, 1958

DMEA
RECEIVED JUL 22 1958

DATE	INITIALS	CODE
7/22	C	220
22	Com	100
4	[illegible]	110
7/22	[illegible]	800
	NSM	400

MEMORANDUM

To: DMEA Field Team, Region I

From: G. G. Waddell, Mining Engineer, U. S. Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4641 (mercury), International Engineering & Mining Company, Axehandle Mine, Jefferson County, Oregon, Contract No. Idm-E1123

The property was jointly inspected on June 4, 1958 with Howard F. Albee, geologist, U. S. Geological Survey. Mr. P. L. Schneider, vice-president in charge of operations, Mrs. E. L. Sylvester, secretary-treasurer, Mr. D. C. Swanson and family, property owner, were on the property at the time of the inspection.

Trenching was being done with an International Harvester TD-18 (equivalent to D-6 instead of D-8 equivalent specified in the contract). In many places where the dozer attempted to strip the talus overburden it was found that the overhead cable blade was too light; thus, the bedrock was not exposed. The dozer is being rented by the month and has been on the property since April 26. No mercury mineralization was uncovered by dozing on the west or north side of the butte, but the intrusive and extrusive contacts were better outlined. On the east side mercury is exposed at P-15B and New Strike. The Operator was advised to deepen the trenching between these two points and make some trench down the slope of the hill to expose the contact instead of following the hill contours.

The churn drill had completed 5 holes, lost 1, and was drilling hole No. 7. Although no significant mercury mineralization was detected in these holes, the churn drilling method of exploration is producing good sample recovery. A man is employed full time to log and dry the samples and collect a representative sample from each 5-feet of drilling. The field representatives gave the Operator permission to dispose of the reject sample material already logged and inspected.

The results of the two samples collected are as follows:

GGW1E	Hole No. 3	Depth 60-65'	Lbs. Hg/ton - none
GGW2E	New Strike area	9' width	" " " - 8.0, .035% As

To date, no monthly report nor voucher has been received from the Operator.

The status of the contract is:

Date of contract: August 21, 1957
Termination date: September 21, 1958
Amount of contract: $10,420.00
Amount spent: No vouchers submitted to date

	Authorized (D-8 equiv.) Hrs.	Estimated (D-6 equiv.) Hrs.
Bulldozing		
Trenching and stripping	75	75
Mobilization	16	8
Drill site preparation	9	8

Churn drilling - authorized: 14 holes - 1,600 feet.
completed: 6 holes - 569 "

(Hole No. 4 was lost so footage and hole are not included in totals; Also, last hole is incomplete.)

G. G. Waddell

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Waddell

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

June 16, 1958

RECEIVED JUN 26 1958

DATE	INITIALS	CODE
6/26	H.J.	225
26	Com	100
"		110
6/26		800
	WSM	400
		"

MEMORANDUM

To: DMEA Field Team, Region I

From: Howard F. Albee, Geologist, U. S. Geological Survey

Subject: Interim inspection report, Docket No. DMEA-4641 (Mercury), International Engineering and Mining Company, Axehandle Mine, Jefferson County, Oregon, Contract No. Idm-E1123

The property was inspected on June 4, 1958, with G. G. Waddell, Mining Engineer, U. S. Bureau of Mines, accompanied by P. L. Schneider, Vice-President and E. L. Sylvester, Secretary-Treasurer of the company.

The work completed consisted of stripping, trenching, and churn drilling. Bulldozer work has exceeded the allowed 100 hours, and, as much of the work was ineffectual due to overburden and talus, only part of the dozer work is shown on the accompanying map. The trenches and stripping show that the contact between the plug and flow rock is much more irregular and is generally farther uphill than was originally thought. Cinnabar has been exposed by trenching near the old P-15-B shaft and in the New Strike area.

Churn drill holes consisted of two holes near No. 1 shaft, one hole near the Dead End shaft, one hole (abandoned) about 350 feet north of the Dead End shaft, and two holes (Nos. 5 and 6) in the No. 2 shaft area as shown on the accompanying map. The drill broke down at 19 feet on the day of the inspection while drilling hole No. 7 near the No. 2 shaft. Following is a summary of the driller's logs:

Hole No.	Depth (ft.)	
1	75	Entire hole in altered andesite. Last 25 feet contained sparse pyrite. Traces of cinnabar to 50 feet.
2	150	Collared in clay. Boulders through full length of hole. Trace cinnabar at 50 feet

Hole No.	Depth (ft.)	
3	75	Altered andesite to 65 feet. Andesite plug material from 65 feet. No cinnabar.
4	42	All in alluvial fill. Abandoned at 42 feet.
5	125	All in andesite plug. No cinnabar.
6	125	0-50 feet in plug material. 3 feet blue clay. 55-60 feet brownish material. 60-125 feet, altered andesite. Unaltered plug material at 125 feet. No cinnabar.
7	19	Collared in andesite plug. Altered andesite at 19 feet. Drill broke down at 19 feet.

The results to date have not been encouraging insofar as the discovery of cinnabar is concerned; however, the most promising area--No. 2 shaft, P-15-B, and New Strike--has yet to be drilled.

Howard F. Albee

Enclosure

Distribution:
DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Docket
Albee

W

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1958 Docket No. DMEA 4641 Contract No. IDM E 1123
Operator's Name International Engineering & Mining Co. Minerals Mercury
Address P. O. Box 278, Santa Barbara, California
Contract Amount, $~~2969.75~~ 10,420.00 Government Participation: 75 % Amount, $~~2227.31~~ 7815.00 WSA 6/28/59

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	1362.75	0	1362.75	1362.75	—	1362.75
Bulldozing	975.00	0	975.00	975.00	—	975.00
Crosscutting						
Drifting						
incidental allow. drilling	632.00	0	632.00	632.00	—	632.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	2969.75		2969.75	2969.75	—	2969.75

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 6/16/58 *Payee International Engineering & Mining Co.

Per Frank S. Sylvester Title Pres.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2227.32

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 4/21/59 Vou. No. 2291

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 1123 in accordance with the terms of the contract.

Signature /S/ Eric L. Erickson Title Mining Engr. Date 3/12/59

APPROVAL BY ~~DMEA~~ OME EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ A. E. Weissenborn Title Exec. Officer Date April 20, 1959

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 1958 Docket No. DMEA 4641 Contract No. IDM E1123

Operator's Name International Engineering & Mining Co. Minerals Mercury

Address P. O. Box 278, Santa Barbara, California

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	ft	1362.75	395	1362.75	395		ft/100	3.45
Auger								
Stripping								
Trenching	hr	975.00	65	975.00	65		hr/100	15.00
Test Pits								
Roads and Trails								
incidental allow. dril.	ft	632.00	395	632.00	395		ft/100	1.60
TOTAL DISTRIBUTED COSTS		2969.75		2969.75				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		2969.75		2969.75				

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

Date 6/16/58 Operator International Engineering & Mining Company

Per Frank S. Sylvester Title Pres.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

REMARKS:

(For Government use only)

/s/ E. L. Erickson, 3/12/59

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

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

May 2, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 7 1958

DATE	INITIAL	CODE
5/7	C	220
		130
	WSM	400

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

Re: Docket No. DMEA-4641 (Mercury)
International Engineering & Mining Co.
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-E1123

Dear Mr. Selfridge:

Enclosed are the Government and Audit copies of Amendment No. 2 to the contract. Other copies of the amendment have already been distributed.

Also enclosed are two copies of a self-explanatory letter dated April 28, 1958 from Frank S. Sylvester, partner, International Engineering and Mining Company.

Sincerely yours,

A. E. Weissenborn

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

Enclosures

cc: USBM (2)
USBM (AD)
Albee

amend. #2

INTERNATIONAL ENGINEERING & MINING CO.

MINE HEADQUARTERS, ASHWOOD, OREGON
POST OFFICE BOX 278 / SANTA BARBARA / CALIFORNIA
Cable Address: INEMCO

President
FRANK SYLVESTER
Active Vice-President
E. L. CLEVELAND
Vice-President
P. L. SCHNEIDER
Secretary-Treasurer
E. L. SYLVESTER

MAIN OFFICE
Santa Barbara, Calif
WOodland 5-1615
WOodland 9-7603

BRANCH OFFICE
106 W. Wyoming Ave
Las Vegas, Nevada

April 28, 1958

U.S. Department of the Interior
Defense Minerals Exploration Administration
South 157 Howard Street
Spokane 4, W ashington

Attn: A.E. Weisenborn
Exect. Officer DMEA
Field Team, Region 1.

Dear Sir:

Please find enclosed signed copies of the amendment to exploration Project Contract No. Idm-E1123, (Docket No. DMEA-4641.

W e wish to thank you for your consideration on the time extension and inform you that we are now under way. The Cat was moved in on the 26th day of April and the driller spudded in on the first hole today.

Mr. P.L. Schneider or Mr. R.L. Hixson will be on the project and will look forward to seeing your field Engineer when in this area.

Sincerely yours

Frank S. Sylvester

FSS/m

COPY

400

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
Washington 25, D. C.
Room 13, Post Office Bldg.
Knoxville 2, Tenn.

February 6, 1953

Mr. M. M. Cooney
707 Roshek Bldg.
Dubuque, Iowa

Re: DMEA-2634, Idm-E-454
Schroeder Company (Iron)

Dear Mr. Cooney:

I have been advised by our Washington office that it is desirable to have an amendment prepared to provide for drilling holes between the 200-foot-spaced holes, instead of depending on interpretation of the word "approximately" as suggested in my letter of December 17, 1952, to you.

Accordingly, I enclose 6 copies of this amendment. If it is acceptable to you, please have Mr. Schroeder sign all 6 copies, keep one and return the original and 4 copies to me.

Very truly yours,

Robert A. Laurence, Executive Officer
DMEA Field Team, Region 7

RAL/zm
cc:
Beck
Lynch
Opr. Com.
Files

OFFICE ... DMEA
RECEIVED APR 25

DATE	INITIALS	
4/25	C	220
4/28	487	200
		406

So. 157 Howard Street
Spokane 4, Washington

April 22, 1958

Mr. Frank S. Sylvester
International Engineering and Mining Co.
P. O. Box 278
Santa Barbara, California

Re: Docket No. DMEA-4641 (Mercury)
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-E1123

Dear Mr. Sylvester:

Enclosed are the original and four copies of a proposed Amendment No. 2 signed by the Executive Officer, DMEA Field Team, Region I for the Government, extending the starting date to May 15, 1958, in accordance with our recent telephone conversation.

If this amendment meets with approval, would you and your partners sign all copies, retain the one marked Operator's copy, and return the rest to this office. If the amendment does not meet with approval, please return the original and all copies, unsigned, to this office with your comments.

Sincerely yours,

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

Enclosures

cc: DMEA (2)
USBM (2)
USBM (AD)
Albee

Information copy

OFFICIAL FILE COPY
DMEA
RECEIVED APR 25 1958
DATE CODE

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMEA-4641

AMENDMENT NO. 2

It is agreed this 21st day of April 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and the International Engineering and Mining Company, a partnership comprised of Frank Sylvester, E. L. Cleveland, P. L. Schneider, and E. L. Sylvester, that Exploration Project Contract No. Idm-E1123, (Docket No. DMEA-4641), dated August 21, 1957, as amended, is further amended as follows:

In Article 3 of the contract the date specified for commencing work is extended from April 1, 1958 (Amendment No. 1), to on or before May 15, 1958, and work shall be completed within thirteen months from the date of the contract.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, or the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

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

INTERNATIONAL ENGINEERING AND MINING CO.

_____ (Partner)
FRANK SYLVESTER

_____ (Partner)
E. L. SYLVESTER

_____ (Partner)
P. L. SCHNEIDER

_____ (Partner)
E. L. CLEVELAND

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMEA-4641

Justification for Amendment No. 2

Because of extremely heavy rains and general bad weather conditions, it was impossible for the Operator to commence work by April 1, 1958. Mr. Frank Sylvester, partner, requested by telephone near the end of March that an amendment be prepared extending the starting date to May 15, 1958.

THE MINING RECORD 3-27-58

Vol. 69, No. 13, Page 7

Mercury Mine in Oregon Activated.

International Engineering and Mining Company of Santa Barbara, Calif., has started the first phase of exploration at its Axehandle mercury mine near Ashwood, Oregon. The firm has a $10,420 DMEA contract for the work. The property was successfully mined by the Swanson family and prior to 1944 produced 800 flasks of mercury, Ore was mined from six different locations on the property. from original ground elevation to minus 75 feet maximum depth, and has not been explored or drilled beyong these specified areas or depths. Trenching and subsurface geology by the new operators indicated a potential open pit operation.

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

March 18, 1958

DMEA
RECEIVED MAR 24 1958
DATE | INITIALS | CODE
24 | | 230
| | 130
| WSM | 400

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

Re: Docket No. DMEA-4641 (Mercury)
International Engineering & Mining Co.
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-E1123

Dear Mr. Selfridge:

Enclosed are the signed Government and Audit copies of Amendment No. 1 to the referenced contract.

The original starting date of the contract was February 19, 1958. The Operator, in a letter dated February 13, 1958, requested that this date be changed to March 1, 1958 due to unusual storm conditions.

Before returning the amendment Mr. Schneider received a telegram, two copies of which are enclosed, from his drilling contractor advising that drilling should not be started until April 1, 1958. In the letter dated March 12, 1958, transmitting the signed copies of the amendment, two copies of which are also enclosed, Mr. Schneider advises that he has changed the starting date to April 1, 1958. This change has been initialed by P. L. Schneider, vice-president of International Engineering & Mining Co., and by Wing G. Agnew, who was Acting Executive Officer at the time.

If this change of date makes the amendment unacceptable, please advise us and we will prepare a new Amendment No. 1.

By Field Team, Region I

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

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

Enclosures

cc: USBM (2)
USBM (AD) w/FO copy of amendment
Albee

INTERNATIONAL ENGINEERING & MINING CO.

MINE HEADQUARTERS, ASHWOOD, OREGON

POST OFFICE BOX 278 / SANTA BARBARA / CALIFORNIA

Cable Address: INEMCO

OFFICE FILE COPY
DMEA
RECEIVED MAR 24 1958
DATE | INITIALS

President
FRANK SYLVESTER
Executive Vice-Presidents
E. L. CLEVELAND
Vice-President
P. L. SCHNEIDER
Secretary-Treasurer
E. L. SYLVESTER

MAIN OFFICE
Santa Barbara, Calif.
WOodland 5-1615
WOodland 9-7603

BRANCH OFFICE
106 W. Wyoming Ave
Las Vegas, Nevada

March 12, 1958

3/18

United States Department of the Interior
Defense Minerals Exploration Administration
Sc. 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-1641
Arshandle Mine
Jefferson County, Oregon
Contract No. Idm-M1123

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

In the best interests of all concerned we respectfully request delay in the starting date of the Arshandle exploration project to confirm with attached wire, to April 1, 1958.

We have taken the liberty to so change the date in the extention authorization. If this is not acceptable and you elect to process a new extention, we will be more than pleased to comply.

Sincerely yours

By, P. L. Schneider
Vice-President
International Engineering
& Mining Co.

PLS/m
Enc. aI-4
Enc. tI-1

RECEIVED
MAR 17 1958

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 27 1958

DATE		CODE
2/27	C	220
2/27	407	800
	WSM	400

1201 N. Division St.
Spokane 2, Washington

February 21, 1958

Mr. Frank S. Sylvester, President
International Engineering & Mining Co.
P. O. Box 278
Santa Barbara, California

Re: Docket No. DMEA-4641 (mercury)
Arabandin Mine
Jefferson County, Oregon
Contract No. Idm-21133

Dear Mr. Sylvester:

Enclosed are the original and four copies of Amendment No. 1 which provides for an extension of the starting and completion dates of your contract. This amendment has been prepared in line with your letter of February 13, 1958.

The proposed amendment has been signed for the Government by the Acting Executive Officer, DMEA Field Team, Region I. If you find the amendment meets with your approval please sign all copies, retain the one marked for the Operator, and return the others to this office. If any part of the amendment does not meet with your approval the original and all copies should be returned to this office with your comments.

By Field Team, Region I

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

E. E. Ekblaw, Acting Member
U. S. Geological Survey

Enclosures

cc: DMEA (2)
USGS (2)
USBM (AD)

INTERNATIONAL ENGINEERING & MINING CO.

MINE HEADQUARTERS, ASHWOOD, OREGON

POST OFFICE BOX 278 / SANTA BARBARA / CALIFORNIA

Cable Address: INEMCO

President
FRANK SYLVESTER
Executive Vice-President
E. L. CLEVELAND
Vice-President
P. L. SCHNEIDER
Secretary-Treasurer
E. L. SYLVESTER

mg
al
alhe
USIM
OMEA
USIM(AD)

Om 4/7
OMA 4/9

MAIN OFFICE
Santa Barbara, Calif.
WOodland 5 1615
WOodland 9-7603

BRANCH OFFICE
106 W. Wyoming Ave
Las Vegas, Nevada

February 13, 1958

U.S. Department of the Interior
Defense Mineral Exploration Admin.
Sec. 157 Howard Street
Spokane 4, Washington

Re: Exploration DMEA [illegible]
(Mining) Axehandle Mine
Jefferson County, Oregon

Attention: Wing Agnew
Executive Officer DMEA
Field Team, Region 1.

Dear Sirs:

Due to the unusual storm which has occurred in the area of the Axehandle Mine, our target date for starting the exploration of February 15th is not feasible.

It is therefor requested this time be extended to March 1st, 1958, and we will notify you in advance of our actual start.

Thanking you for your co-operation, I remain,

Sincerely yours

Frank S. Sylvester

FSS/m

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 27 1958
DATE CODE

RECEIVED
air mail
FEB 17 1958
U.S.
SPOKANE WASH

Information copy

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMEA-441

AMENDMENT NO. 1

It is agreed this 19th day of February 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and the International Engineering and Mining Company, a partnership comprised of Frank Sylvester, R. L. Cleveland, F. L. Schneider, and E. L. Sylvester, that Exploration Project Contract No. IDm-XI183 (Docket No. DMEA-441), dated August 21, 1957, is amended as follows:

In Article 3 of the contract the date specified for commencing work is extended from February 15, 1958, to on or before March 15, 1958, and the period for completion of the work is extended to thirteen months from the date of the contract.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, or the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By _____
Wing G. Agnew
Acting Executive Officer
DMEA Field Team, Region I

INTERNATIONAL ENGINEERING AND MINING CO.

_____ (Partner)
FRANK SYLVESTER

_____ (Partner)
E. L. SYLVESTER

_____ (Partner)
F. L. SCHNEIDER

_____ (Partner)
R. L. CLEVELAND

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMA-4641

Justification for Amendment No. 1

The Operator requests, because of a storm in the area of the Ambondrolo mine, that the date of commencing the work be extended from February 15, 1958, to March 1, 1958. Because of the possibility of continued stormy conditions and the impracticability of commencing work under such conditions, the date of commencing work under the project should be extended from February 15, 1958, to March 15, 1958.

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

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 6 1957

DATE	INITIALS	CODE
12/6	C	220
12/11	B	215
12/11	WSG	400

December 3, 1957

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

Re: Docket No. DMEA-4641 (Mercury)
International Engineering and
Mining Company
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-E1123

Dear Mr. Selfridge:

Enclosed are the Government and Audit copies of the above referenced contract.

By copy of this letter, other copies of the contract are being distributed.

Sincerely yours,

A E Weissenborn

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

Enclosures

cc: Finance Office w/encl.
USBM (2)
Albee

OFFICIAL FILE COPY DMEA RECEIVED DEC 6 1957		
DATE	INITIALS	CODE
12/6	C	220
12/6	WSM	400

So. 157 Howard Street
Spokane 4, Washington

December 3, 1957

Mr. Frank S. Sylvester
P. O. Box 278
Santa Barbara, California

Re: Docket No. DMEA-4641 (Mercury)
International Engineering and
Mining Company
Axehandle Mine
Jefferson County, Oregon
Contract No. Idm-81123

Dear Mr. Sylvester:

Thank you for your letter of November 29, 1957 with which you returned the signed copies of the DMEA contract.

When the time comes, if it should appear unfeasible to start work by February 15, 1958 due to weather or any other conditions, you should request an amendment postponing the starting date, telling us at that time when you think work will commence. Of course you can start any time prior to February 16, 1958, without an amendment.

Sincerely yours,

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

cc: DMEA (2)
USBM (2)
USBM (AD)
Albee

OFFICIAL FILE COPY
BMEA
RECEIVED DEC 6 1971

DATE	INITIALS	CODE

INTERNATIONAL ENGINEERING & MINING CO.

MINE HEADQUARTERS, ASHWOOD, OREGON
POST OFFICE BOX 278 / SANTA BARBARA / CALIFORNIA
Cable Address INEMCO

Fine
Also
USBM
DMEA

MAIN OFFICE
Santa Barbara, Calif.
WOodland 5-1618
WOodland 9-7663

BRANCH OFFICE
106 W. Wyoming Ave.
Las Vegas, Nevada

DMEA

DMEA - 4641
Axebandle

Axebandle
and evaluation
after starting

1956, and sooner
office well in

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 6 1957

DATE	INITIALS	CODE
12/6	C	220
12/6	USM	400

air mail

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

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 18 1957

DATE	INITIALS	CODE
11/18	gb	220
11/18	WSM	400

November 12, 1957

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

Re: Docket No. DMEA 4641 - Mercury
International Engineering and
Mining Company
Axehandle Mine
Jefferson County, Oregon

Dear Mr. Selfridge:

Thank you for your reminder of November 7, 1957.

We wrote the applicant November 4, 1957 asking what his intentions were with regard to the signing of the contract but have not yet received an answer. If we do not hear within a reasonable length of time we shall write to the applicant again.

Sincerely,

A. E. Weissenborn

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

cc: USBM (2)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11-5	Hopkins	400
11-5	Martin	400
11/6	GCS	130
"	Johnson	110
		~~140~~
11/7	glb	220
		400

NOV 7 1957

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

Re: Docket No. DMEA 4641 - Mercury
International Engineering and
Mining Company
Axehandle Mine
Jefferson County, Oregon

Dear Mr. Weissenborn:

Reference is made to proposed contract No. Idm-E1123 for the above-named application which was sent to your office on August 21, 1957. Your letter of September 12 showed that the proposed contract was sent to Applicant for execution but had not been returned.

We believe it would be advisable to inquire about the Applicant's intentions and request, if the contract is not to be executed, that the original and four copies be returned to your office with statement of reasons for not signing.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

APPROVED:

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

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

JHOPKINS/dlm 11-5-57
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. I
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

8623

Dear

RECEIVED NOV 7 1957		
DATE	INITIALS	CODE
11/7	gb	220
	WSM	400

So. 157 Howard Street
Spokane 4, Washington

November 4, 1957

International Engineering & Mining Co.
P. O. Box 278
Santa Barbara, California

Re: Docket No. DMEA-4641 (Mercury)
Ambandis Mine
Jefferson County, Oregon

Dear Sirs:

On September 12, 1957, we gave the original and four copies of a proposed long-form contract signed by the Administrator for the Government to Mr. F. L. Schneider.

If the terms and conditions of this proposed contract are satisfactory to you, please sign all five copies, retain the copy marked for the Operator, and return the rest to this office. You will note that under Article 3 the starting date has been left blank. If you sign the contract, please indicate when work will commence.

If the contract in its present form is not acceptable to you, please return all copies, including the Operator's copy, to this office with your comments.

We would appreciate a prompt reply.

Sincerely yours,

Donald R. Maclaren
For: Wing G. Agnew
Acting Executive Officer, DMEA
Field Team, Region I

cc: DMEA(2)
USBM(2)
USBM(AD)

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 16 1957

DATE	INITIALS	CODE
9-16	C	220
9/16	WSM	400

So. 157 Howard Street
Spokane 4, Washington

September 12, 1957

International Engineering & Mining Co.
P. O. Box 278
Santa Barbara, California

Re: Docket No. DMEA-4641 (Mercury)
Axhandle Mine
Jefferson County, Oregon

Dear Sirs:

Enclosed are the original and four copies of a proposed long-form contract signed by the Administrator for the Government. A copy of the new consent to lien has been attached to each copy of the contract.

If the terms and conditions of this proposed contract are satisfactory to you, please sign all five copies, retain that copy marked for the Operator, and return the rest to this office. You will note that under Article 3 the starting date has been left blank. When returning the contract, please indicate when work is to commence.

If the contract in its present form is not acceptable to you, please return all copies, including the Operator's, to this office with your comments.

Sincerely yours,

Donald R. MacLaren
Alternate Acting Exec. Officer
Field Team Region I

Attachments

cc: DMEA (2)
USBM (2)
USBM(AD)

DMEA 12

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 6 1957

DATE	INITIALS	CODE
9-6	C	220
9/6	WSM	400

Dnea

So. 157 Howard Street
Spokane 4, Washington

August 27, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 30 1957

DATE	INITIALS	CODE
8/30	Q	220
8/30	WSM	400

Air Mail

International Engineering & Mining Co.
P. O. Box 278
Santa Barbara, California

Re: Docket No. DMEA-4541 (Mercury)
International Engineering and
Mining Company
Axehandle Mine
Jefferson County, Oregon

Dear Sirs:

We have received from our Washington office a proposed contract for exploration at the Axehandle mine. Before we can forward copies of the contract for signature, we must receive the enclosed Consent to Lien and Subordination Agreements signed by each of the persons named thereon with their address. The Consent to Lien and Subordination Agreement form furnished with the application is not acceptable to the DMEA because it does not clearly identify the property and the authority for Power of Attorney to Daniel C. Swanson is insufficient. Copies of the unacceptable lien form are returned herewith.

In the hopes of saving time in securing these signatures, we tried to locate a representative of your company by telephone in Santa Barbara and Las Vegas in order to find out if anyone would be present at your field headquarters. As we were unsuccessful, we are sending the forms to your Santa Barbara office.

Sincerely yours,

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

Enclosures
cc: DMEA(2)
DMM(2)
Allen

orm 7
6)

OFFICIAL FILE COPY

Date	Surname	Code
8/23	GCS	130
"	Johnson	110
		~~150~~ 228
8/26	P	220
8/26	WSay	400

AUG 23 1957

GCSelfridge, Rm. 4459, Ext. 5372

Dept. of Interior - DMEA

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

T E L E T Y P E

MR. DONALD R. MacLAREN
DMEA FIELD TEAM, REGION I
SOUTH 157 HOWARD STREET
SPOKANE 4, WASHINGTON

REUR PHONE INQUIRY TODAY. ORION EXPLORATION AND DEVELOPMENT COMPANY, DMEA-3938, PREFERABLE REWRITE PAGE 1 CONTRACT FORM BUT REFERENCE TO LABOR LIEN CAN BE STRICKEN OUT. WE SHOULD RECEIVE COPIES OF AFFIDAVIT. PROPOSED AMENDMENT AXEHANDLE MINE, DMEA-4641, MAILED AUGUST 21, 1957. PROPOSED AMENDMENT JENNIE MOORE, DMEA-3626, WILL REACH COMMITTEE NEXT WEEK.

SIGNED

CHAIRMAN, OPERATING COMMITTEE

GCSelfridge/hb (8/23/57)
Copy to: Admr.'s R. File
Operating Committee
GCSelfridge
Docket DMEA-3626
Docket DMEA-3938
Docket DMEA-4641

8623

CLASS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

1201

SYMBOLS
DL = Day Letter
NL = Night Letter
LT = International Letter Telegram

1958 MAR 12 PM 6 41

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

OA233 PRB582

PR BDA079 9 COLLECT=TDBD MADRAS ORG 12 618PMP=

P L SCHNEIDER= 8/43

INTERNATIONAL ENGINEER AND MINING CO 622 ANACAPA ST

SANTA BARBARA CALIF=

WEATHER HERE UNSETTLED ADVISE START DRILLING APRIL 1ST=

BERG ABRAMS WELL DRILLING MADRAS.

94703

abs

B842p

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 24 1958

DATE	INITIALS	CODE

rm 7

OFFICIAL FILE COPY

Date	Surname	Code
8-9	Hopkins	400
8-9	Martin	400
8-19	Chambers	800
8/21	[illegible]	130
"	Johnson	110
		~~400~~
8/22	C	220
		400

Received 8-19

AUG 21 1957

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

Re: Docket No. DMEA 4641 - Mercury
International Engineering and
Mining Company
Axehandle Mine
Jefferson County, Oregon

Dear Mr. Weissenborn:

Enclosed are the original and four copies of a proposed long-form contract signed by the Administrator for the Government.

It consists of the form, Annex I (2 pages), Annex II (1 page), Exhibit "A" (3 pages), and a map. Also enclosed are two extra copies of Annex I, Annex II, Exhibit "A" and the map for Field Team use.

The Consent to Lien and Subordination Agreement form furnished with the application is not acceptable because it does not clearly identify the property, and the authority for Power of Attorney to Donald C. Swanson is insufficient. A form with names typed on it is enclosed for execution by the same parties and attachment to the contract. Copies of the unacceptable lien form are returned herewith for the Operator.

If the terms and conditions of this proposed contract are satisfactory to you and the Operator, all five copies should be signed and the usual distribution made.

If any part of this proposed contract does not have either your approval or that of the Operator and cannot be amended within your delegated authority, the original and all copies of the proposed contract are to be returned to this office, together with the proposed changes for consideration.

Under Article 3 the starting date has been left blank and is to be filled in when the Contract is signed by the Operator.

Sincerely yours,

Enclosures

George C. Selfridge
Chairman, Operating Committee (JB)

APPROVED:

P. F. Yopes (JB)
Member, Bureau of Mines

W. P. Williams (JB)
Member, Geological Survey

8623

JHopkins/dlm 8-9-57
cc to : Code 400
Admr. R. File
Oper. Comm.
FT. Reg. I
Messrs. J.W. Pennington, USBM
T.H. Kiilsgaard, USGS

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

AUG - 6 1957

Memorandum

TO: The Administrator, DMEA
Attention: Chief, Division of Iron and Ferro-Alloys

FROM: Associate Solicitor, Division of Mineral Resources

SUBJECT: Docket No. DMEA 4641 (Mercury)
International Engineering and Mining Co.
Axehandle Mine, Jefferson County, Oregon

As requested in your memorandum dated July 16, 1957, we have prepared the attached Contract in satisfactory legal form for execution, subject to the attachment of the Consent to Lien and Subordination Agreement referred to therein. A form is attached to this memorandum for your use.

In this regard, the copy of the lien form in the docket is not acceptable, because it does not clearly identify the property, and we are not clear that the execution of the form by Donald C. Swanson under the Power of Attorney is authorized. If the authority relied upon for execution by Power of Attorney is that authority in the lease, it is our view that the authority is insufficient. Therefore, the parties should either sign the Consent to Lien and Subordination Agreement form in their own behalf, or we should be furnished with a more specific Power of Attorney.

Robert P. Dwyer

Robert P. Dwyer

HCRubin:md
8/5/57

Copies to: Solicitor's Docket (2)
DMEA Docket
WSMartin
R. P. DWYER
H. C. Rubin
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7-16	Hopkins	400
7-16	Martin	400
		140

July 16, 1957

To: Associate Solicitor, Division of Mineral Resources

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Preparation of contract
Docket No. DMEA 4641 - Mercury
International Engineering and Mining Company
Axehandle Mine
Jefferson County, Oregon

Attached is a draft of a proposed contract for the captioned project for your use in preparing the contract in final form.

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

Attachment

JHopkins/dlm 7-16-57
cc to : Docket
Chron.

4

8623

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMEA 4641
EXHIBIT "A"

Description of the Work

The approximate location of the proposed work is shown on the map entitled, "Geologic Map of the Axe Handle Mine Area, Horse Haven District, T. 9 S., R. 17 E., W. M. Jefferson County, Oregon" attached hereto and made a part hereof.

The work is as follows:

1. With a D-8 or equivalent make bulldozer, perform the following work.

(a) Strip along an area approximately 1,000 feet in length and a maximum width of 50 feet to extend the known limits of the alteration zone in the New Strike, P-15-B and No. 2 shaft area, and excavate trenches across mineralized zones at points approved by the Government.

(b) Strip along the altered contact zone in the vicinity of the Dead End shaft collar for a distance of approximately 300 feet and to an approximate average depth of 5 feet on the uphill side, and excavate trenches across the mineralized zones at ~~of~~ points approved by the Government.

(c) Prepare churn drill sites and roads to the drill sites.

2. In the New Strike, P-15-B and No. 2 shaft area churn drill a maximum of 6 vertical 6-inch holes each to a maximum depth of 125 feet or a total of 750 feet.

3. In the No. 1 shaft area churn drill a maximum of 4 6-inch holes; two to a depth of 150 feet each and two to a depth of 125 feet each or a total of 550 feet.

4. In the Dead End shaft area churn drill a maximum of 4 holes each to a maximum depth of 75 feet or a total of 300 feet.

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

Churn drill holes shall be cased as necessary.

Mineralized sections of all work shall be sampled and assayed for mercury by Government approved methods.

Estimated Costs

Actual Costs

1. Independent Contracts

(a) Bulldozing

Trenching and stripping	75 hours		
Mobilization	16 "		
Preparation of drill sites and roads to drill sites	9 hours	per. hr.	
Total	100 hours	@ $15.00	$1,500.00

(b) Churn drilling

1,600 feet of 6-inch holes @3.45/ft	5,520.00

Fixed Unit Costs

Chemical Analysis	150 samples @ $4.00	600.00
Drying Samples	150 " @ 1.60	240.00

Incidental Allowance 1/ for each foot of drilling completed.

1,600 feet @ $1.60 /ft of drill holes	$2,560.00
Estimated Total Cost of Project	10,420.00
Government Participation @ 75%	$7,815.00

1/ Includes all costs whatsoever that are not included in the estimates for category (1) Independent Contracts, and for chemical analysis and drying samples under Fixed Unit Costs and is in lieu of all other costs, such as costs for supervision, payroll taxes, materials and supplies, sample bags and transportation, rental of operating equipment, tent for personnel, etc. which would otherwise be allowable under categories (2) through (7) of the contract.

EXPLORATION PROJECT CONTRACT
INTERNATIONAL ENGINEERING AND MINING COMPANY
DOCKET NO. DMEA 4641

ANNEX I

The land referred to in Article II of the contract is described as follows:

South half of Northwest quarter

All that part of the Northwest quarter of Northwest quarter of Section 35, Township 9 South, Range 17 E.W.M. lying south of the premises known and named as the Red Jacket Mine and being about 25.02 acres of land in said Northwest quarter of Section 35.

The West half of the Southwest quarter of Section 35 and that part of SE¼ of NE¼ of Section 34, Township 9 South, Range 17 E.W.M. lying North of Randolph Gulch and containing 30 acres, more or less;

East half of Southeast quarter of Section 34; and

A certain lode mining claim, Notice of Location of which was filed by Lavey C. Swanson, said mining claim being known as the Better Chance, and said Notice having been filed 9/20/37, which claim, according to the description contained in the Notice is as follows:

Commencing at a post marked Northwest corner at the Northwest corner, which is approximately 846 feet in a southerly direction from the Northeast corner of Section 34, Township 9 South, Range 17 E.W. M. from thence 300 feet in a southerly direction to the East center end post marked East Center End; thence 300 feet in a southerly direction to a corner post marked Southeast; thence 1400 feet in a westerly direction to the southwest corner post marked Southwest corner; thence 300 feet in a northerly direction to the West center and post marked West Center End; thence 300 feet in a northerly direction to a corner post marked Northwest; thence 1500 feet in an easterly direction to the place of beginning;

all in Jefferson County, Oregon

DOCKET No. DMEA 4641

WORK SHEET

Work Sheet

Category I Independent Contracts

(a) Bulldozing

Trenching and Stripping	75 hours	
Mobilization	16 hours	
Drill sites, roads preparation	9 hours	
Total	100 hours @ $15.00 p.hr.	$1,500.00 x

(b) Churn drilling
1,600 feet @ $3.45/ft 5,520.00 x

Category II-Labor Supervision and Consultants

1 Project Engineer - Sampler 2 mos. @ $650.00 p.mo.	1,300.00
1 Geologist 4 days @ $50.00 per da.	200.00

Category III-Materials and Supplies

For Drying Samples	240.00 x

Category IV- Operating Equipment

Pickup Truck Rental, 60 days @ $10.00 per da.	600.00

Category V- Building Repairs	None
Category VI- New Buildings - Tent	50.00

Category VII- Miscellaneous

Churn drilling Contractor Bond @ 0.05/ft.	80.00
Sample Analysis 150 @ $4.00	600.00 x
150 Sample Bags and Transportation @ $0.70	105.00
Taxes, Compensation Insurance, 1,500 @ 15%	225.00
Total estimated actual costs	$10,420.00

1300
200
600
50
80
105
225
2560

1500
5520
840
7860
2560
10420

$ 2560 / 160' = $1.60/ft

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

So. 157 Howard Street
Spokane 2, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 8 1957

DATE		CODE
7/9	C	220
7/9	WSM	400

July 2, 1957

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

Re: Docket No. DMEA-4641 (Mercury)
International Engineering & Mining Co.
Axehandle Mine
Jefferson County, Oregon

Dear Mr. Selfridge:

Enclosed are two copies each of four bids submitted by International Engineering and Mining Company, in response to your teletype request of June 13, 1957.

As the price of any bid would depend to some extent on the amount of drilling, we informed the applicant that we were thinking in terms of 1,600 feet of churn drill hole. Because this was so much less than the amount proposed in the application, Mr. P. L. Schnider, vice-president, and Mrs. E. L. Sylvester, secretary, of the applicant company, called at the Spokane office to learn what reductions might have been made in their requested trenching. Present at this meeting for DMEA were A. E. Weissenborn, D. R. MacLaren and D. C. Alvord of the Geological Survey and E. W. Parsons of the Bureau of Mines. Mr. Schnider was considerably dismayed at the reduced drilling and, therefore, it was deemed advisable to tell him what had been recommended in order to forestall offering a contract which the company might be unwilling to accept.

When it was explained that should the results of the recommended trenching and drilling prove encouraging the company could request additional work and, conversely, that should the results be discouraging they probably would not want to spend any more money, Mr. Schnider agreed that the recommended program would be acceptable.

However, Mr. Schnider suggested that the recommended 75 hours bulldozing was barely enough for the trenches and pointed out that additional time should be allowed for preparation of roads for moving the drill rig, for leveling drill sites, and for auxiliary power to move the drill. He also felt that as the dozer would be brought in on a low bed trailer, two days should be allowed for mobilization.

He then raised the question of the sampling that should be done and proposed that allowance be made for necessary equipment for drying and splitting the samples. Finally, he requested an allowance of $500 to rehabilitate an existing building for housing of personnel. Mr. Schnider and Mrs. Sylvester were advised that their objections would be transmitted to Washington, but no commitments were made by any of the DMEA personnel present.

After further discussion with the field men who made the examination, we recommend the following:

1. Under Item (1) Independent Contracts: Increase the 75 hours of recommended bulldozing to 100 hours to provide for the cost of mobilization of the dozer and drill rig, preparation of necessary drill access roads, and drill station preparation.

2. Under Item (3) Operating Materials and Supplies: Allow a maximum of $250 for materials necessary for drying and preparing samples.

3. As the bulldozing and drilling will be done under independent contracts, and Mr. Schnider, who will supervise the work lives in a trailer, the only personnel to be housed are the sampler and geologist-consultant. Therefore, under Item (6) New Buildings, etc., allow $50.00 for a tent.

By Field Team, Region I, NW Dist.

Donald R. MacLaren

Donald R. MacLaren
Alternate Acting Exec. Officer
U. S. Geological Survey

S. W. Zoldok

S. W. Zoldok, Acting Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)

PHONE 2516

P. O. BOX 726

BERT ABRAMS
Well Drilling
MADRAS, OREGON

June 18, 1957

Bid proposal for churn drilling

Exploratory drilling for Axehandle Mine, Ashwood, Oregon

DMEA, Docket #4641

Total of 1600 ft. of 6" drilling @ $3.45 per lineal ft.

Drilling to be :
Minimum depth, 75 ft.
Maximum depth, 150 ft.

Estimate of time required, 60 days

Performance bond additional, $55. 20

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 8 1957

DATE	INITIALS	CODE

Bert Abrams

Bert Abrams

Oregon Driller's License # 70

DMEA

This

O. E. Hurst
836 So. 12 St.
Redmond, Oregon

June 19, 1957

Bid proposal to International Engineering & Mining Co.
P.O. Box 16 Ashwood, Oregon
Axehandle Mine, Jefferson Co.
D.M.E.A. Docket # 4641

Item # 1 1600Ft. 6 inch exploratory holes.
Mimumum depth 75Ft.
Maximum depth 150Ft.
Samples available at five (5) ft. intervals thruout.
Total cost for material and labor 1600ft. at $5.00 per lin. Ft
Total contract price $8000.00

If performance bond is required, same will be furnished at no additional cost.

Item # 2 Estimated time of completation 120 days.

O E Hurst
O. E. Hurst

OFFICIAL FILE COPY
D M E A
RECEIVED JUL 8 1957

DATE	INITIALS	CODE

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 8 1957
DATE | INITIALS | CODE

Whitehurst & Son
Drilling Company
P. O. Box 44
Prineville, Oregon

June 18, 1957

International Engineering & Mining Company
P. O. Box 16
Ashwood, Oregon

Attention: Mr. P.L. Schnider
Vice-President

Dear Sir:

We wish to thank you for the invitation extended us on the bid proposal to the International Engineering & Mining Co. for Chura Drilling Exploratory Holes, D.M.E.A., Docket # 464I , Axehandle Mine, Ashwood, Oregon.

In the listing below is our completed bid on these exploratory holes.

1. To cover all labor, starters, tools and machinery for drilling 6" test holes, 1600 Lin. Feet. . . . . Lump Sum. $5,600.00

2. Price per foot added or deducted for grater or lesser depths of 6" test holes. . . . . @ Per Ft. $3.50

3. Price per foot for all casen left in holes to be used for water wells. . . . . @ Per Ft. $3.00

We hope the above bid meets with your approval.

Yours verly turly,

Whitehurst & Son Drilling Co.

James R. Whitehurst

James R. Whitehurst

Lloyd L. Mathers

Drilling Contractor

855 E. Seventh

Bend, Oregon

International Engineering & Mining Co.

Bid Proposal D.M E A - Docket No. 4641

Churn drilling exploration

Axe Handle Mine

Ashwood, Oregon

Proposal

1600 lin. ft. 6" hole

Holes to be 75' to 150 in depth

3.50 per lin. ft.

If casing is to be left in one hole for a domestic well, additional charge of 2.00 per ft. for casing.

Lloyd L. Mathers

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/13	Selfridge	130
"	Johnson	110
"	Hottenstein	100
	Martin	400
6/13	C	225

6/13 Yopes 130
6/13 Kiilsgaard 130

JUN 13 1957

Department of the Interior

TELETYPE

XXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXX

DMEA

14X1401(01) Revolving
Fund, Defense Production Act, Interior,
(Transfer to Office of Secretary)

MR. A. E. WEISSENBORN, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION I - NW DISTRICT
SOUTH 157 HOWARD STREET
SPOKANE 4, WASHINGTON

RE INTERNATIONAL ENGINEERING AND MINING COMPANY, DMEA-4641, PLEASE REQUEST APPLICANT TO SUBMIT THREE BIDS IF POSSIBLE ON CHURN DRILLING.

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE

GCSelfridge/esf - 6/13/57
cc to: Docket
Code 400
Admr. R. File
Oper. Committee
J. W. Pennington, USBM
T. H. Kiilsgaard, USGS
G. C. Selfridge

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6-12	Hopkins	400
6-12	Martin	400
		130
		110
		109
		220
		400

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

Re: Docket No. DMEA 4641 - Mercury
International Engineering and
Mining Company
Arrehandle mine
Jefferson County, Oregon

Dear Mr. Weissenborn:

Reference is made to the memorandum examination report of May 10, 1957, that recommends an exploration project consisting of trenching and churn drilling on the subject property.

Please advise us if the Applicant has been informed of the method and extent of your recommended program as requested in its letter of December 31, 1956, so that bids from three drilling contractors may be obtained and submitted.

Upon receipt of these bids we will continue to process this application.

Sincerely yours,

APPROVED: Chairman, Operating Committee

Member, Bureau of Mines

Member, Geological Survey

JHOPKINS/dlm 6-7-57 6-12-57
cc to: Docket
Code 400
Admr. R. File
Oper. Comm.
FT. REG. I -NWD
J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

8623

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

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

Re: Docket No. DMEA 4641 - Mercury
International Engineering and
Mining Company
Axehandle mine
Jefferson County, Oregon

Dear Mr. Weissenborn:

Reference is made to the memorandum examination report of May 10, 1957, that recommends an exploration project consisting of trenching and churn drilling on the subject property.

Please advise us if the Applicant has been informed of the method and extent of your recommended program as requested in its letter of December 31, 1956, so that bids from three drilling contractors may be obtained and submitted.

Upon receipt of these bids we will continue to process this application.

Sincerely yours,

APPROVED:

Chairman, Operating Committee

Frank D. Lamb
Member, Bureau of Mines

Member, Geological Survey

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6-10	[illegible]	400
6-10	Martin	400
		130
		110
		100
		220
		400

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

Re: Docket No. DMEA 4641 - Mercury
International Engineering and
Mining Company
Axehandle mine
Jefferson County, Oregon

Dear Mr. Weissenborn:

Reference is made to the memorandum examination report of May 10, 1957, that recommends an exploration project consisting of trenching and churn drilling on the subject property.

To enable us to continue processing this application, please request the applicant to obtain and submit bids from at least three drilling contractors for the amount of churn drilling recommended. We will also appreciate receiving your estimate of the volume of material to be excavated by trenching, expressed in cubic yards, with costs; and a breakdown of the cost of sample bags and transportation shown under Category 7 - Miscellaneous.

Under Category II of the recommended costs you have shown a supervisor at $500.00 per months and a geologist-consultant at $100.00 per day for 4 days as being necessary. It is our opinion that the recommended project is not likely to require the services of a highly paid consultant but could be handled by a supervisor who had general training in geology.

Sincerely yours,

APPROVED:

Chairman, Operating Committee

Member, Bureau of Mines

JHOPKINS:foc 6-7-57
cc to: Docket
Code 400
Admr. R. File
Oper. Comm.
FT. REG. I - NWD
J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

Member, Geological Survey

8623

Retyped DH 6-12-57

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

Please supply to be [illegible] and [illegible] the [illegible]

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

Re: Docket No. DMEA 4641 - Mercury
International Engineering and
Mining Company
Axehandle mine
Jefferson County, Oregon

Dear Mr. Weissenborn:

Reference is made to the memorandum examination report of May 10, 1957, that recommends an exploration project consisting of trenching and churn drilling on the subject property.

To enable us to continue processing this application, please request the applicant to obtain and submit bids from at least three drilling contractors for the amount of churn drilling recommended. We will also appreciate receiving your estimate of the volume of material to be excavated by trenching, expressed in cubic yards, with costs; and a breakdown of the cost of sample bags and transportation shown under Category 7 - Miscellaneous.

Under Category II of the recommended costs you have shown a supervisor at $500.00 per months and a geologist-consultant at $100.00 per day for 4 days as being necessary. It is our opinion that the recommended project is not likely to require the services of a highly paid consultant but could be handled by a supervisor who had general training in geology.

Sincerely yours,

APPROVED:

Chairman, Operating Committee

Member, Bureau of Mines

Member, Geological Survey

Please advise us if the applicant has been informed of the method and extent of your recommended program as requested in its letter of Dec. 31 1956, so that bids from 3 drilling contractors may be obtained and submitted. Upon receipt of these bids we will continue to process this application.

Sincerely yours

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

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 5 1957

DATE	INITIALS	CODE
6/5	C	220
6/6	WSM	400
June 4, 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-4641 (Mercury), International Engineering and Mining Company, Axe Handle Mine, Jefferson County, Oregon.

Examination of the Axe Handle Mine by Charles R. Hubbard, Bureau of Mines, and Donald G. Alvord, Geological Survey, revealed that the property contained five mercury-mineralized zones. Of these, three were believed to be sufficiently promising to warrant exploration by stripping, trenching, and drilling at an estimated total cost of $12,952.50.

This modified program proposed by the Field Team seems preferable to the original one of the applicant. Data supplied in the examination report is believed factual as Bureau of Mines records show that the Axe Handle Mine has produced 150 flasks of mercury from 1,038 tons of ore (about 11 pounds per ton).

I concur with the recommendation of the Field Team for the modified program.

J. W. Pennington

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

IN REPLY REFER TO:

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

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 5 1957

DATE	INITIALS	CODE
6/5	JAD	220
6/5	WSM	400

June 4, 1957

Re: DMEA 4641
International Engineering
and Mining Co.
Axe Handle Mine
Jefferson Co., Oregon
Appt. Est. $75,925.30
Rec'd " 12,952.50
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 by percussion drilling and underground work a structural complex from which a small production of mercury has been obtained.

The examiners recommend that 3 of 5 mercury-bearing zones be explored by bulldozing and churn drilling at an estimated cost of $12,952.50. If the results are favorable, underground work might be recommended.

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

N. E. Nelson

N. E. Nelson

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

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 27 1957

DATE	INITIALS	CODE
5/27	C	220
		130
6/3	C	220
6/3	WSM	400

May 23, 1957

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

Re: Docket No. DMEA-4641 (Mercury)
International Engineering and
Mining Company
Axe Handle Mine
Jefferson County, Oregon

Dear Mr. Selfridge:

Enclosed are four copies of a memorandum examination report by Charles R. Hubbard, Mining Engineer, U. S. Bureau of Mines, and Donald C. Alvord, Geologist, U. S. Geological Survey on the above-referenced application.

The property is in an area from which mercury has been mined, 15,097 flasks having been produced from the Horse Heaven mine about 5 miles to the east. On the applicant's property there are at least five mercury bearing zones, three of which Hubbard and Alvord consider worthy of limited exploration. The property is said to have produced 144 flasks of mercury over a 6-year period, 1937-1943, but the work apparently was carried on intermittently, and only rock averaging 10 pounds of mercury per ton or better was considered to be economic.

Hubbard and Alvord conclude that the chance of making a significant discovery of mercury ore is fair and they recommend a limited program.

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

By Field Team, Region I, NW District

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Donald R. MacLaren, Acting Member
U. S. Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
5-31-57
(date)

Enclosures

cc: USBM (2)
USGS (SRO)
Alvord

Mines

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 27 1957

DATE	INITIALS	CODE
		130 ~~16~~
		220

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

May 10, 1957

MEMORANDUM

To: DMEA Field Team Region I, Northwest District

From: Charles R. Hubbard, Mining Engineer, U. S. Bureau of Mines, and Donald C. Alvord, Geologist, U. S. Geological Survey

Subject: Field Examination Report, Docket No. DMEA-4641 (Mercury), International Engineering and Mining Company, Axe Handle Mine, Jefferson County, Oregon

INTRODUCTION

An application was received February 15, 1957, for aid in an exploration project for mercury at the Axe Handle mine in Jefferson County, Oregon. The exploration proposal comprises dozer trenching, drifting, and drilling at an estimated cost of $75,925.30. The property was visited by the examining team on March 20, 1957, accompanied by E. W. Parsons, mining engineer, U. S. Bureau of Mines, P. L. Schneider, vice-president in charge of the Axe Handle project, and Daniel C. Swanson, one of the property owners and original discoverers. Inclement weather and the muddy condition of the surface trenches prevented mapping and sampling at this time.

The property was visited again on March 28 by the Bureau of Mines engineers in company with Mr. Schneider and E. L. Sylvester, secretary-treasurer. About 75 percent of the sampling was completed on March 28 but heavy rains that evening and the following day prevented further sampling. D. C. Alvord revisited the property on March 29 primarily to discuss the application and to let Mr. Schneider know that, due to the rain, we would be unable to make as comprehensive an examination as we had hoped but that we had sufficient information upon which a report and recommendation could be based.

On Site EXAM

SUMMARY AND RECOMMENDATION

The Axe Handle Butte area contains at least five mercury-bearing zones in highly altered extrusive volcanics localized along or near the margins of a generally unaltered andesite plug. Three

Reviewed by
DMEA OPERATING COMMITTEE
5-31-57
(date)

of the mercury-bearing zones are considered sufficiently promising to warrant limited exploration with DMEA support. A program using trenching and stripping to extend and more completely expose the existing target areas, and churn drilling to test the mineralized zones at depth, is recommended. It is estimated that about 75 hours of D-8 dozer operation would be needed to accomplish the stripping and that 14 churn drill holes ranging from 75 to 150 feet in depth and aggregating 1,600 feet would be needed to accomplish the drilling. The cost of the recommended program is estimated to be $12,952.50, with the Government's share of the costs at 75 percent amounting to $9,714.37.

LOCATION AND ACCESSIBILITY

The property is in secs. 34 and 35, T. 9 S., R. 17 E., in the Horse Heaven Mining District, Jefferson County, Oregon. It is about 32 miles northeasterly from Madras (the county seat) and 4.5 miles easterly from Ashwood over a graded and partially gravelled county road. From the county road to the mill site is five-eights of a mile of unimproved access road. Some difficulty of access is experienced during wet weather; however, it is a semiarid region, with long dry periods during the summer and only light snowfall during winter months. The landscape is dotted with scattered clumps of sagebrush and juniper. Altitude at the mill site is about 3,840 feet, and the maximum relief is about 500 feet.

Madras, with a population of 1,500, is the nearest shipping and supply point. Ashwood comprises a post office and a small general store and is a very limited source of supplies. Housing for a staff and labor force is not available and would have to be constructed at the property should it prove capable of sustained production; for an exploration program, however, trailers and tents centered about a community shower and laundry shack should suffice. With the possible exception of a room or two for single men, no facilities exist at Ashwood. The sparsely populated surrounding ranch country could not be expected to furnish much manpower; thus labor would have to be imported. Power from the Wasco Cooperative Power Company is available from lines along the county road adjacent to the property.

PROPERTY RIGHTS

The applicant furnished photostat copies of option to lease and/or purchase the mineral rights on certain private lands and the rights to a certain lode mining claim, all of which constitute about 320.40 acres, in secs. 34 and 35, T. 9 S., R. 17 E., Jefferson County, Oregon, from Daniel C. Swanson et al., the owners. The option is recorded in volume 3, page 225, Book of Mines, County Courthouse, Madras, Oregon. The option was activated prior to the date of examination. The land included clearly covers the ground that would be benefited by the exploration program proposed herein.

APPLICANT

International Engineering and Mining Company

Main office: Post Office Box 278
Santa Barbara, California
Phone: WOodland 5-1615

Branch office: 106 W. Wyoming Avenue
Las Vegas, Nevada

International Engineering and Mining Company is a partnership comprising:

Frank S. Sylvester President	E. L. Cleveland Executive Vice-President
P. L. Schneider Vice-President	E. L. Sylvester Secretary-Treasurer

Of the partners, E. L. Cleveland appears to be the only individual professionally experienced in mining enterprises and his experience, over a period of 30 years, has apparently been mostly along promotional lines, with some successes to his credit in recent years. All four partners, however, appear to be successful individuals who have had experience in many fields. They have all had some experience in mining at different times and jointly participated in the development of mercury deposits in Santa Barbara County, California. Mr. Schneider, the partner presently in charge of exploration at the Axe Handle, is an experienced construction and earth-moving contractor but has very little knowledge of geology or nature of ore deposits. The company appears to be financially responsible and capable of furnishing their share of the cost of the proposed exploration program.

DESCRIPTION OF THE PROPERTY

The existing surface facilities, comprising the buildings which were constructed and used by former operators, are in such a state of disrepair as to be of little use to the present operator. The property has been closed down since about 1943. A small retort is on the property, and the retort building and about three other dilapidated cabins are grouped around the No. 1 shaft (pl. 1). In addition to the five-eights of a mile access road from the county road to the No. 1 workings, a jeep road leads to the No. 2 shaft and another to the Dead End shaft.

All underground workings on the property are now caved and inaccessible, but they are either shown on maps and/or described in U. S. Geol. Survey Bulletin 969E (Waters, A. C. and others, Quicksilver Deposits of the Horse Heaven Mining District, Oregon, 1951).

The No. 1 shaft (pl. 37, Waters and others, print included) was an incline to below the 75-foot level; about 140 feet of drifting and a stope were opened on this level. On the 45-foot level about 300 feet of drifting and crosscutting was done; also some raising and stoping. This is the most extensive working on the property. The No. 2 shaft is shown as an incline to the 53-foot level with a small amount of drifting on the 36- and 53-foot levels. The P-15-B incline is reported to have been about 80 feet deep on the incline and supplied most of the ore treated in 1943, the last year of operation. The Dead End shaft was sunk vertically for about 40 feet, and a short crosscut was driven from the bottom of the shaft.

Immediately prior to and during our inspection the applicant excavated dozer trenches, as deep as was practicable with the equipment used along or near the hanging walls of the mercury-bearing zones in the vicinity of the No. 1 shaft, the Dead End shaft, and between the No. 2 shaft and P-15-B incline. In addition, two favorable areas were stripped to expose the underlying rock; one such area is adjacent to the No. 2 shaft on the west and the other is in the vicinity of the New Strike discovery cut (pl. 1). Trenching had been started on the Guy Wharton prospect south of Randolph Gulch, but only incomplete exposure of the bedrock had been made by the end of the inspection. Sixteen channel samples were cut from the bottom and sides of the trenches and in the stripped area west of No. 2 shaft. Results of the sampling are shown on plate 1.

HISTORY AND PAST PRODUCTION

The Axe Handle area was prospected for gold and silver as early as 1865 and sufficient showings of these metals were found so that in 1900-1901 about 1,000 feet of workings were dug along a silicified shear zone north of the Axe Handle mine (pl. 1, Red Jacket and Hi-Grade workings). L. C. Swanson (deceased) and Daniel Charles Swanson discovered commercial quantities of mercury on the property in 1935 and in 1936-1937 a few flasks of mercury were produced from the Adit No. 1 crosscut workings. In 1938 the deposit was developed through the No. 1 shaft, and levels 45 and 75 yielded about 30 flasks of mercury. After shutting down in 1939 owing to the low price of mercury, the property was reopened in 1940 and operated intermittently until late 1943 when further work had to be abandoned due to a lack of labor. Waters and others (1951) report that the workings were all caved or flooded by December 1943; reportedly there has been no subsequent activity on the property until the applicant's dozer work of this year. The total recorded production from the Axe Handle workings is 144 flasks of mercury produced during the period 1937-43. The grade of the ore produced from the various workings on the property is not recorded but Daniel C. Swanson, who apparently has worked in most, if not all of the workings, states that in general, due to the methods of mining, ore handling, retorting

and furnacing employed, rock that averaged less than about 10 pounds mercury per ton was uneconomic. It is reasonable to suspect that most of the mercury yield was from ore that averaged somewhere around 10 pounds mercury per ton.

Two other properties in the district have reported mercury production. The Horse Heaven mine, located about 5 miles east of the Axe Handle, had yielded 15,097 flasks by the end of 1944; the property was under production at the time of our examination. The Ashwood Nos. 1-6 property, just east of Ashwood, reportedly yielded 450 pounds of mercury from a single ore lot weighing 5 tons.

GEOLOGY

Waters and others (1951) present the geology of the Horse Heaven district and its mercury deposits, including the Axe Handle mine, in some detail. The following discussion is taken freely from this bulletin.

General

The Horse Heaven district is chiefly underlain by andesitic flows, tuffs, and tuffaceous sedimentary rocks of the Clarno formation of Eocene age which, after moderate deformation and erosion to a rolling surface, were covered by a series of basaltic andesites, followed by biotite rhyolite flows and pyroclastics, and finally, in the southern part of the area, by flows of augite andesite. The mercury deposits are associated with volcanic plugs; four of them, including the Horse Heaven deposit, occur in or near autobrecciated plugs of biotite rhyolite; the Axe Handle deposits, on the other hand, are in altered andesite flow rocks localized along or near the margins of a generally unaltered andesite plug.

Although broadly speaking volcanic plugs are loci for mercury deposits within the district, individual ore shoots are controlled by various combinations of smaller structural features. Hydrothermally altered portions of plugs and adjacent wall rocks are more likely to contain ore shoots than unaltered rocks; and, generally, the more permeable zones such as autobrecciated portions of plugs and dikes, as well as zones of breccia along faults cutting plugs or wall rocks are very likely sites for ore shoots. Particularly rich ore may be found in breccias just beneath cappings of clay. At the Horse Heaven mine the most important capping clay is soil formed on a surface of unconformity; other important cappings, however, are zones of clay formed by hydrothermal alteration; others are gouges along faults; and still others are bedded deposits of tuffaceous clay or fine-grained tuff.

The most important ore mineral in the district is cinnabar, but native mercury is locally abundant. Metacinnabar is scarce

but widely distributed. The Red Jacket claims on the north of the Axe Handle mine contain a dark-gray to black, antimony-bearing cinnabar. The principal gangue minerals are marcasite, carbonates, and the silica minerals. At the Axe Handle mine gypsum is fairly common in some of the ore, as are jarosite, melanterite and clay, largely montmorillonite; the last forms the dominant alteration mineral of the wall rocks.

Axe Handle mine

The Axe Handle Butte consists of a resistant plug of columnar fine-grained augite andesite intruded through flows of porphyritic andesite (pl. 1). Although the contact between the plug and the surrounding flow rock varies greatly in dip, the plug pitches westward and is elongated westerly parallel to the principal direction of shearing in the area. A small parasitic plug of augite andesite crops out 1,000 feet northwest of the main plug and pitches about 45° eastward, presumably joining the west-pitching plug several hundred feet below the surface.

The andesite of the Axe Handle plug is unaltered except close to the contact, but most of the surrounding andesite flow rock is thoroughly altered. Hydrothermal alteration and mineralization within the area is most intense at five localities (pl. 1): (1) the No. 1 shaft area; (2) the New Strike, P-15-B, and No. 2 shaft area; (3) the Dead End shaft area; (4) the Randolph adit-Guy Wharton prospect area; and (5) the Red Jacket silicified zone.

No. 1 shaft area.--This mineralized area is entirely in white or gray to buff clay formed by complete alteration of the porphyritic andesite flows localized along a mineralized shear zone. The shear zone trends N. 85° W. and has an average dip of 45° S. The dips vary between 18° and 62° S. with local swellings in the ore body occurring where the shear zone flattens. The zone is cut by normal faults that strike about N. 30° E. and dip 50°-70° SE. Displacement by one of the normal faults at the east end of the workings is about 40 feet to the northeast, but elsewhere the movement is but a few feet at the most (pl. 37, Waters and others, 1951, copy included with this report).

Cinnabar occurs within the zone as impregnations in the clay and in seams and veinlets. The economic width of the zone varies from around 3 feet to as much as 10 feet but probably averages about 5 feet (estimated from pl. 37). Production from the zone is unknown but probably has amounted to about half the total recorded production for the property (144 flasks).

According to Waters and others (p. 145) some ore remains in the No. 1 shaft workings as pillars and unmined areas between

levels; the west end of Level 75 and the east drift of Level 45 are considered to have good possibilities of ore. Nothing is known concerning the possibilities of ore below the present workings.

New Strike, P-15-B, and No. 2 shaft area.--In this area the ore occurs along a highly altered zone that closely follows the contact between the intrusive andesite and the porphyritic andesite. Cinnabar occurs as disseminated particles and veinlets in both the altered intrusive and extrusive andesites, but most of the ore-grade material is in the extrusive andesite. Both Shaft P-15-B and No. 2 shaft workings explore the footwall side of the contact in the altered extrusive andesite. Inclined Shaft P-15-B pitches 28° SW. for 80 feet immediately beneath the contact and reportedly yielded most of the ore (43 flasks) retorted during 1943. The No. 2 shaft, collared in ore that followed a shear zone parallel to the contact, passed beneath the ore zone 15 feet down collar. Drifts on the 36 and 53 levels developed little ore but were driven with little regard to the structure. Dozer scraping in the vicinity of the New Strike cut exposes a hard, brecciated and silicified structure that strikes S. 35° E. and dips about 60° S.; the surrounding porphyritic extrusive andesite is highly altered and contains good showings of cinnabar occurring as disseminated particles, veinlets, and clusters of veinlets.

The New Strike, P-15-B, and No. 2 shaft area is the most promising locality on the property, largely because of its length, approaching 1,000 feet of good showings on a little explored but favorable structure, and because of the production potential indicated by the short-lived but high-grade production from the P-15-B incline.

Dead End shaft area.--The Dead End shaft was sunk on a highly altered contact zone to a depth of 40 feet. A pipelike body of ore was reportedly followed down the shaft, and according to Waters and other (1951) a short drift from the bottom encountered excellent ore beneath the contact, which there flattened considerably.

Randolph adit-Guy Wharton prospect area.--Little is known concerning this area; according to Mr. Schneider several small truck loads of very high-grade ore was taken from the two small adits on the Guy Wharton prospect. Incomplete dozer trenching done between the adits on the Guy Wharton prospect had, by the last day of the examination, partially disclosed a zone of altered extrusive andesite over a distance of about 100 feet. One small pocket of fairly good looking disseminated cinnabar was disclosed. Presumably there are at least showings of mercury at the Randolph adit area which is a southeasterly trending zone of altered and mineralized andesite at least 500 feet long. The possibility exists

that the Randolph adit and Guy Wharton workings explore the same structure and that the zone of alteration extends between the two areas over a length of 1,000 feet or more.

Red Jacket silicified zone.--This area consists of a silicified shear zone in the extrusive andesite that trends east to southeastward across the north end of the property, roughly parallel to the elongation of the plug. The dip is steep to the north. About 1,000 feet of adits and shallow shafts were dug on this property in 1900 and 1901 to explore for gold and silver. Some gold and silver was found, but there is no recorded production. In the late thirties portions of these workings were worked for mercury, and several small pockets of a dark-gray, antimony-bearing cinnabar were discovered in the Hi-Grade shaft. A few flasks of mercury are reported to have been produced from this shaft.

Slope Creep and Landslide area.--A portion of the west slope of Axe Handle Butte is covered with a mass of rock rubble and soil of undetermined thickness (pl. 1). This area has, for some reason, caught the fancy of the applicant partnership, and they would like very much to trench and drill through the landslide mass to search for mercury. The applicant is of the opinion that the landslide material is only a few feet thick; along the margins of the mass this is certainly true, but the thickness towards the central portions of the mass almost certainly would be greater than a trench could be cut through economdically. There is no evidence to suggest that this area is a better target than any other area surrounding the andesite plug and because of the landslide cover exploration should logically begin elsewhere.

Sampling

As all the underground workings are caved, no subsurface samples could be taken. The applicant's dozer work had made several good exposures along the mineralized zones that warranted some sampling. Rain and mud, unfortunately, prevented sampling on 2 of the 3 days the property was visited. When samples were taken, mud and water so obscured the trench bottoms that the selection of good sampling sites and the actual cutting of the samples was difficult.

During the examination Mr. Schneider declared that he expected to develop, and was mainly interested in developing, a large low-grade deposit amenable to selective open-pit mining. There are a number of valid exploration targets on the property, but neither in U. S. Geol. Survey Bulletin 969 or in the evidence presented by the applicant before or during the examination is there any suggestion of the presence of a large low-grade deposit. The 16 samples taken during the examination were primarily to demonstrate the existence or nonexistence of the large low-grade deposit envisioned by Mr. Schneider rather than to evaluate the subsurface potential of the target areas.

Of the three samples taken at the No. 1 shaft area, two were barren and one, CRH-5, 18 feet long, ran 0.5 pound mercury per ton (pl. 1). In view of the subsurface production from this locality these results obviously tell us little about the values of mercury that might be expected from additional exploration on the structure.

Of the 13 samples taken from the locality of the No. 2 shaft and P-15-B incline, 7 were barren, 4 contained less than 1 pound mercury per ton and 2, CHR-10 and CHR-12, ran 4.51 and 13.5 pounds mercury per ton. It should be noted that these 2 samples were taken over intervals of only about 5 feet. The possibility of finding a large low-grade deposit on the property appears to be small.

Rain prevented sampling in the vicinity of the New Strike. This is unfortunate in that on the basis of visual examination this area may be one of the best surface showings on the property.

MERIT OF THE PROPERTY

Cinnabar has been mined from at least 5 general areas on the Axe Handle property and reputedly, cinnabar can be panned throughout the area. Much of this widespread distribution is the result of landslides, soil creep, and slope wash; nevertheless, test pits on the lower slopes of the Butte show traces of cinnabar in the altered extrusive andesite outside the 5 areas that have yielded mercury in the past.

The New Strike, P-15-B, and No. 2 shaft area is the most favorable locality on the property; this area, marked by a zone of altered rock 1,000 feet in length, contains several surface exposures of ore shoots. The success of the P-15-B incline also indicates the economic potential of the zone. Because of the limited subsurface exploration done in this area and the shallow overburden, from 2 to 4 feet, this zone offers itself admirably to exploration by trenching to further determine its extent, and by surface drilling to search for deposits at depth. Unfortunately, the contact steepens from nearly 30° S. at P-15-B progressively westward and may be too steep near the west end of the zone to be drilled advantageously with vertical holes.

The No. 1 shaft area, as shown by past development, undoubtedly contains unmined ore. According to Waters and others (1951) some ore remains in unmined areas between levels, and both the east and west ends of the workings offer possibilities. Nothing is known concerning the ore-bearing zone below the present workings. Certainly drill holes testing the altered zone east and west of the present No. 1 shaft workings would stand a good chance of encountering ore; drill holes testing the zone below the present workings also would not seem to be entirely out of line.

Referring to section A-A' (pl. 1) an additional target of possible merit is readily apparent. In this section a possible relationship of the No. 1 shaft ore-bearing zone to the parasitic andesite plug is shown. Deposits in the district are definitely related to the contacts of intruded plugs of volcanic rock with extrusive rocks, the details of control being chiefly determined by subsidiary structures. Therefore, 1 or 2 holes drilled to the projected intersection of the parasitic plug with the mother plug might be rewarding. It is not recommended, however, that the Government participate in the exploration of this target unless additional evidence is supplied supporting its merit.

The Dead End shaft area has some promise as indicated by the zone of altered rock and the reported discovery in the drift. Some dozer work at this locality to further delimit the favorable altered zone and some shallow holes to test the zone near the Dead End shaft would stand a good chance of disclosing leads to an ore body. ¶ The reported production from the Guy Wharton prospect and the altered zone in the vicinity of the Randolph adit makes this locality appear somewhat promising, certainly the known indications merit limited dozer work to further disclose the ore-bearing possibilities of the zone. Government participation in the exploration of this area, however, should be deferred until additional evidence is supplied supporting its merit.

The Red Jacket silicified zone does not appear very promising; according to Waters and others (1951) any ore bodies within the zone will probably be pockety and similar to the ore in the Hi-Grade shaft.

APPLICANT'S PROPOSAL

The applicant has not made a clear proposal for exploration; however, from enclosure No. 10, "Scope of Exploratory Work Project," and from enclosure No. 7, a surface map with some lines marked "Exploratory drill pattern" and "Two drifts @ 100' each," it appears that the proposal comprises 12 dozer trenches approximately 900 feet long, 108 drill holes averaging 115 feet deep, and 2 drifts each of 100-foot length.

Enclosure No. 10 states that the dozer trenches are to be spaced at about 125-foot intervals and to require the excavation of 43,200 cubic yards at an estimated cost of $10,386. According to enclosure No. 7, a large part of the proposed trenching is in an area of landslide and creeping soil.

The dozer trenches are apparently designed both for exploration and to serve as benches for the drill holes which are proposed to be spaced on 100-foot centers, 9 holes to the trench. These are described as percussion drilling, 70-160 feet deep.

The total of 108 holes, averaging 115 feet in depth, or 12,420 feet of drilling, is proposed at an estimated cost of $27,648.

Drift "A" near the Randolph adit and drift "B" near the Wharton prospect are proposed to be 100 feet each in length, making a total of 200 feet of drifting at an estimated cost of $8,000. During the examination, however, it became apparent that Mr. Schneider would now rather drive only one of these adits and use the funds thus released to explore further at the Dead End shaft.

A sum of $400 is proposed for building repairs to provide a bunkhouse and kitchen for contractors' employees.

The remainder of the cost of the project proposal is to provide for sampling, assaying, engineering, supervision, and equipment as follows:

Item 4 - Certified assays	
1,280 assays @ $4.30	$ 5,504.00
Sample bags, 150 bags @ $0.35	52.50
	$ 5,556.50
Item 5 - Engineering and geology	
Mining engineer, consultant	1,000.00
Geologist, do.	2,400.00
Final evaluation report	750.00
	4,150.00
Item 6 - Supervision	
Mine superintendent	6,800.00
Item 7 - Sampling and assaying	
Sampler and field assayer	4,200.00
Item 8 - Assay equipment	400.00
Material for assaying 1,240 samples	347.20
Item 9 - Pick-up truck	
Rental - $150 per month	
Fuel and maintenance - $100 per month	
8 months	2,000.00
Item 10 - Pick-up driver and utility man	3,120.00
Item 11 - Taxes	
Compensation, State U. & O.A.	1,553.20
Item 13 - Contingency fund	1,382.90
The applicant's total estimated project cost is	$75,925.30

The estimated contract period is 8 months.

RECOMMENDED EXPLORATION PROGRAM

From conversations with Mr. Schneider, and from the nature of the exploratory work proposed and now in progress, it appears that the applicant hopes to develop a large mineralized area which can be mined (using some degree of selectivity) by open-cut or open-pit methods. The feasibility of finding a deposit of this nature seems remote in the light of the work done by past operators and the results of sampling of the present dozer trenches. The writers believe, however, that a limited exploration program would probably disclose additional bodies of cinnabar ore in areas of intense hydrothermal alteration near contacts or shear zones similar to those exploited by former operators. It is therefore recommended that trenching and drilling be directed to follow closely the apparent structural controls starting from former workings rather than pattern trenching and drilling over a wide area as proposed by the applicant, a large portion of which is mapped as landslide and creep soil. Conversations held with Mr. Schneider and E. L. Sylvester indicate that the applicant would accept any reasonable program that would give more information about the property even though they favor strongly an extensive trenching and drilling program such as they have applied for.

The following program is proposed by the examining team to be completed in about 2 months:

New Strike, P-15-B, and No. 2 shaft area.--Additional dozer trenching and stripping to trim up the work already completed by the applicant (re-expose the sills and walls and connect between exposures) and to extend the known limits of the alteration zone as far as it contains showings of cinnabar. Presumably, this work would be concentrated along an area 10-25 feet wide, generally following the mineralized contact zone which will probably vary between 5 and 10 feet in width; the allowable maximum width of the stripping, however, should be at least 50 feet to allow coverage of unforeseen leads. Stripping and trenching would generally be done parallel to the contact zone, but cross trenching should be done at intervals. The total length of the area explored would probably be on the order of 1,000 feet (about the length of the area of stippling on pl. 1). A geologic map of this work should be prepared, more or less as the work progresses. It is estimated that about 50 hours of D-8 bulldozer operation would accomplish this phase of the exploration.

A maximum of 6 vertical holes drilled to a maximum depth of 125 feet to test the zone at projected inferred depths of between 50 and 100 feet. The minimum spacing of these holes should be set at 100 feet and the maximum at 250 feet. Approximate locations of these holes is shown on plate 1, but the actual location would be determined jointly by the Field Team and the operator after the bulk of the dozer work had been completed.

No. 1 shaft area.--No dozer work is proposed. Two vertical holes drilled to test the ore-bearing zone 50 feet east and 50 feet west of the No. 1 shaft drift headings; these would be approximately 150 feet and 125 feet deep, respectively, their precise depths dependent upon the results of elevation control established immediately prior to drilling (pl. 1). A provision in the contract should be made for 2 additional holes to depths of 125 and 150 feet, respectively, if needed to further test this zone.

Dead End shaft area.--Strip and expose the altered contact zone by dozer trenching starting in the vicinity of the Dead End shaft collar and extend the known length of the altered contact zone as far as it contains showings of cinnabar. The minimum amount of stripping allowable should aggregate the equivalent of 300 feet of trenching, sufficiently deep to make a mappable exposure (probably an average of 5 feet deep on the uphill side). Up to twice this amount of work should be allowed to complete the picture in the event the zone proves sufficiently large and promising to warrant the work. It is estimated that a maximum of about 25 hours of D-8 operation would be required to accomplish the proposed trenching.

At least 2 vertical holes drilled to 75-foot depths on 100-foot centers as approximately located on plate 1 are recommended. Allowance should be made for 2 additional holes 75 feet deep to test promising indications uncovered by the dozer trenching.

RECOMMENDED COSTS

(1)	Independent contracts		
	Bulldozing (D8 or equal bulldozer) 75 hours @ $15.00/hr.	$1,125.00	
	Churn drilling (14 holes, 75-150 feet) 1,600 feet with casing @ $5.00/ft.	8,000.00	$ 9,125.00
(2)	Labor, supervision, consultants		
	1 sampler @ $400/mo.	800.00	
	1 supervisor @ $500/mo.	1,000.00	
	Geologist-consultant - 4 days @ $100/day	400.00	2,200.00
(3)	Operating materials and supplies		none
(4)	Operating equipment		
	1 pick-up truck @ $10/day		600.00
(5)	Building repairs		none
(6)	New buildings, etc.		none
(7)	Miscellaneous		
	Sample analysis - 150 assays @ $4.00	600.00	
	Sample bags and transportation @ $0.65	97.50	
	Unemployment comp., insurance, etc. 15% of wages and salaries	330.00	1,027.50
	Total estimated cost of project		$12,952.50
	Government participation @ 75 percent		$ 9,714.37

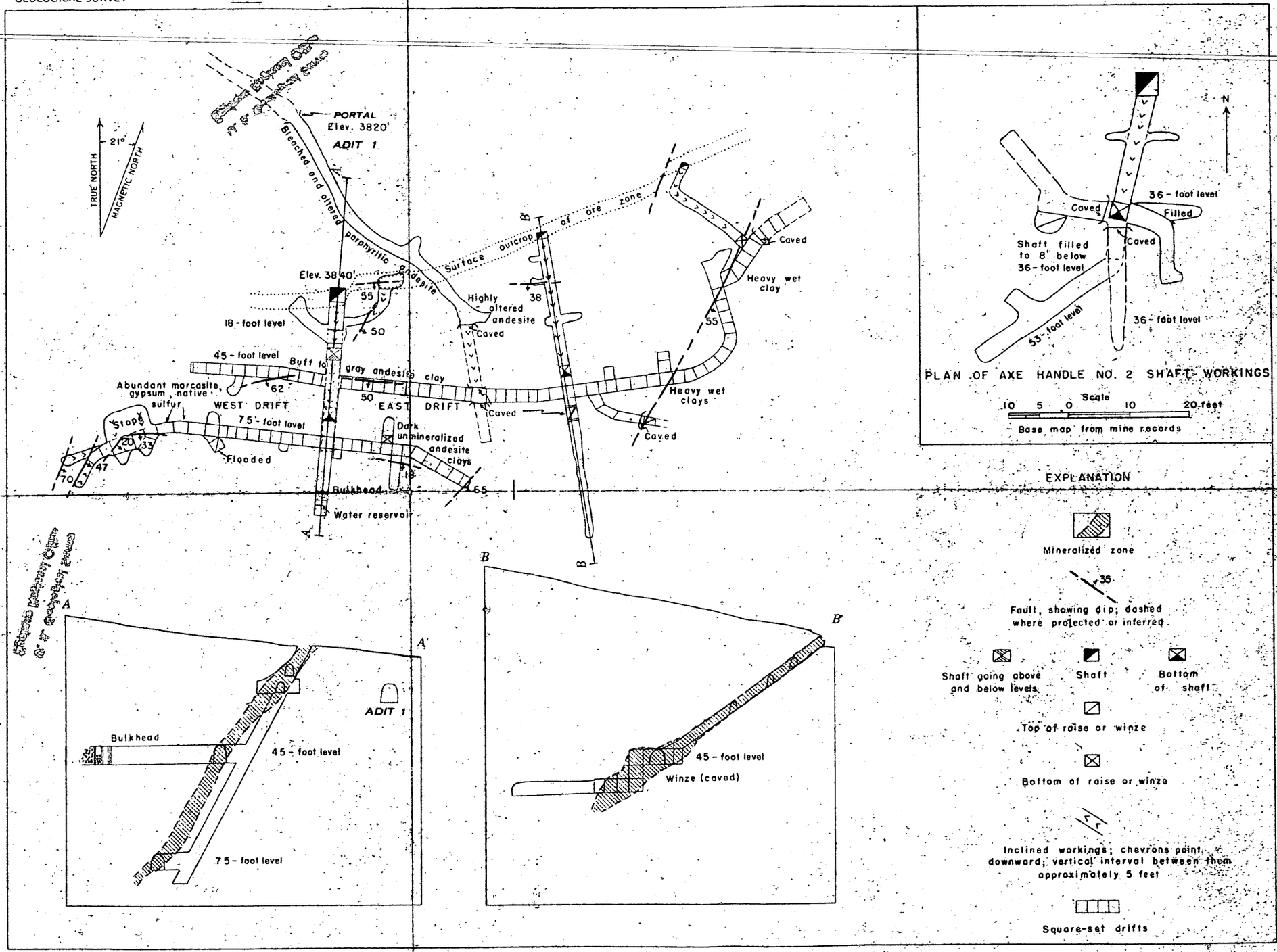
CONCLUSION

Churn drilling is recommended in preference to diamond drilling as experience has indicated that cinnabar mineralization in a highly altered claylike material cannot be sampled adequately by diamond drilling. It is not believed that drilling and blasting will be needed to facilitate trenching. The silicified areas apparently can be handled with a D-8 dozer or its equivalent.

The applicant's proposal to include 200 feet of drifting or crosscutting has not been recommended as no target area appears to justify such work at this time.

The Government's participation in some underground exploration might be recommended later if the present proposed work discloses a target.

Enclosures
Distribution:
DMEA(4)
USBM(5)
USGS(SRO)
Docket
Alvord



Geology by R.E. Brown and G.W. Walker, 1943

PLAN AND SECTIONS OF SHAFT 1 WORKINGS AND PLAN OF SHAFT 2 WORKINGS, AXE HANDLE MINE, JEFFERSON COUNTY, OREGON

903601 O - 51 (In envelope) No. 16

OFFICIAL FILE COPY
D M E A
RECEIVED MAY 1957
COD

DATE	INITIALS	COD

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 18 1957

DATE	INITIALS	CODE
3/18	C	220
3/18	WSG	400

So. 157 Howard Street
Spokane 4, Washington

March 8, 1957

Air Mail

International Engineering and Mining Co.
Box 16
Ashwood, Oregon

Attention: Mr. P. L. Schneider

Re: Docket No. DMEA-4641 (Mercury)
Axhandle Mine
Jefferson County, Oregon

Gentlemen:

Messrs. E. W. Parsons and Charles Hubbard of the U. S. Bureau of Mines and I have been assigned to examine the referred to mine regarding your application for Government aid to explore for mercury.

We will try to be at Madras on the evening of March 20 and meet you in front of the Post Office at Ashwood on the morning of March 21. In the event that we are unable to meet you on that date, we will telephone or wire you on the evening of the 19th and reset the appointment, probably for the 22d.

I anticipate that the examination will entail at least two days. If for any reason you are unable to show us your property on Thursday the 21st, or have an alternate suggestion, please let me know at the above address.

Sincerely yours,

Donald C. Alvord
Geologist

cc: DMEA (2)
USBM (2)
Alvord

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/1	Hopkins	400
3/1	Martin	400
3/4	Selfridge	130
"	Johnson	110
"	Mittendorf	100
	C	220

Lamb 400
Kiilsgaard

MAR - 4 1957

International Engineering and Mining Co.
Box 16
Ashwood, Jefferson County, Oregon

Attention: Mr. P. L. Schneider

Re: Docket No. 4641 - Mercury
Axehandle Mine
Jefferson County, Oregon

Gentlemen:

The above-docketed application for exploration assistance for mercury ores has been reviewed by the Washington office of the Defense Minerals Exploration Administration and referred to Mr. A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I, Northwest District, South 157 Howard Street, Spokane 4, Washington, for a field examination of the property.

Any assistance that you can give the members of the Field Team will be appreciated.

Please note that we are addressing our letter to you, as requested in a letter dated December 31, 1956, from Mr. Frank S. Sylvester, President, International Engineering and Mining Co., whereas in accordance with our usual procedure, the notification of the docket number assigned to your application was sent to the address first given in Article I of the application form.

Future correspondence originating in this office will be addressed to Box 16, Ashwood, Jefferson County, Oregon, if that is satisfactory to you.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

JHopkins:am 3-1-57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
Messrs. A. McMahon, USBM
T. Kiilsgaard, USGS
FT REG I, NWDist

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/1	Hopkins	400
3/1	Martin	400
3/4	Selfridge	130
"	Johnson	110
"	Mettenbrink	100
		220

MAR - 4 1957

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

Re: Docket No. DMEA 4641 - Mercury
International Engineering and
Mining Company
Axehandle mine
Jefferson County, Oregon

Dear Mr. Weissenborn:

Reference is made to your letter of February 4, 1957, transmitting three copies of an application for exploration assistance on the subject property.

In regard to information omitted from the application, we are inclined to believe that unconfirmed data on past production from inaccessible workings would be of no use in evaluating the application prior to a field examination. We suggest that at the time of the examination the examiners request such data as they believe will be helpful.

The work proposed is not definite enough for proper consideration, but we believe the types and extent of the work suggested may form the basis for a definite program if an exploration project seems warranted. The application, therefore, is being referred to your office for a field examination of the property.

Copies of memoranda dated February 21, 1957, and February 25, 1957, by A. D. McMahon, Bureau of Mines and N. W. Nelson, Geological Survey, respectively, relating to the project are enclosed for your files. Also enclosed is extra copy of the application for the use of the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosures

APPROVED:

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

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

JHopkins:am 3-1-57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
Messrs. A. McMahon, USBM
T. Kiilsgaard, USGS
FT REG I, NWDist

8623

OFFICIAL FILE COPY
D M E A
IN REPLY REFER TO:
RECEIVED FEB 26 1957

DATE	INITIALS	CODE
2/26	C	220
2/27	WSM	400

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

February 25, 1957

Re: DMEA 4641
International Engr. & Mining Co.
Axehandle Mine
Jefferson County, Oregon
$75,925.30 - 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 exploring, (a) a large area underlain by altered rocks adjacent to a uniformly columnar andesite plug, by bulldozing and percussion drilling and (b) drifting at 2 places some distance from the (a) work.

In the area near the plug are numerous workings in mercury-bearing veins and a shear zone. From the workings as of 1944, about 150 flasks of mercury had been produced. A. C. Waters et al, quicksilver deposits of the Horse Heaven Mining District, Oregon, U. S. Geological Survey, Bulletin 969.

The work program is poorly depicted on the map but appears to consist of 12 side hill trenches 900 feet long, to be made by bulldozer. The bulldozing would be followed by 12,420 feet of percussion drill holes averaging 115 feet deep, 60 feet of each to be cased and 55 feet (average) non-cased. The object of the work, as inferred, is to uncover and explore a landslide area, test pits in which, show traces of cinnebar at many localities in the altered porphyritic andesite. The stripping would also disclose veins and shear zones which like those already worked, are mercury-bearing.

The objectives of the drifting are not given, but judging from the locations, the drifts would explore near where the Randolph and Guy Wharton adits have already been driven.

The assay map of the Swanson-Wharton Quicksilver Mine indicates mercury in the No. 1 mine shear zone is erratically distributed and the average content is low, though at several places ore grade material was then present.

The proposed work program appears "ambitious", but some work may be warranted. Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 25 1957

DATE	INITIALS	CODE
2/25	C	220
2/25	WSM	400

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

February 21, 1957

Memorandum

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

From: Commodity Specialist, Branch of Base Metals

Subject: Review of application, Docket No. DMEA 4641 (mercury). International Engineering and Mining Company, Axehandle Mine, Jefferson County, Oregon. $75,925.30

Enclosure #10 of the application indicates that the applicant proposes to explore the Axehandle mine property by bulldozing 43,200 cubic yards of material from nine trenches; percussion drilling 108 holes totaling 12,420 feet on 100 foot centers in the trench bottoms; and driving two adit drifts of 100 feet each.

According to the U.S.G.S. report (U.S.G.S. Bulletin 969-E) additional exploration work on this property appears to be warranted. However, in view of previous experience with percussion drilling it would seem that the trenching should be followed by a reasonable diamond drilling project designed to test specific targets and justify driving the adit drifts.

The proposed consulting and supervision costs appear to be excessive for the type of work involved; also, the estimated expenditures for assays is questionable in view of a provision for a field sampler-assayer and assaying material.

It is recommended that the application be referred to the Field Team for an examination of the property.

Very truly yours,

A. D. McMahon

A. D. McMahon

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

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

February 18, 1957

International Engineering & Mining Co.
622 Anacapa Street
Santa Barbara, California

Subject: DMEA-4641

Gentlemen:

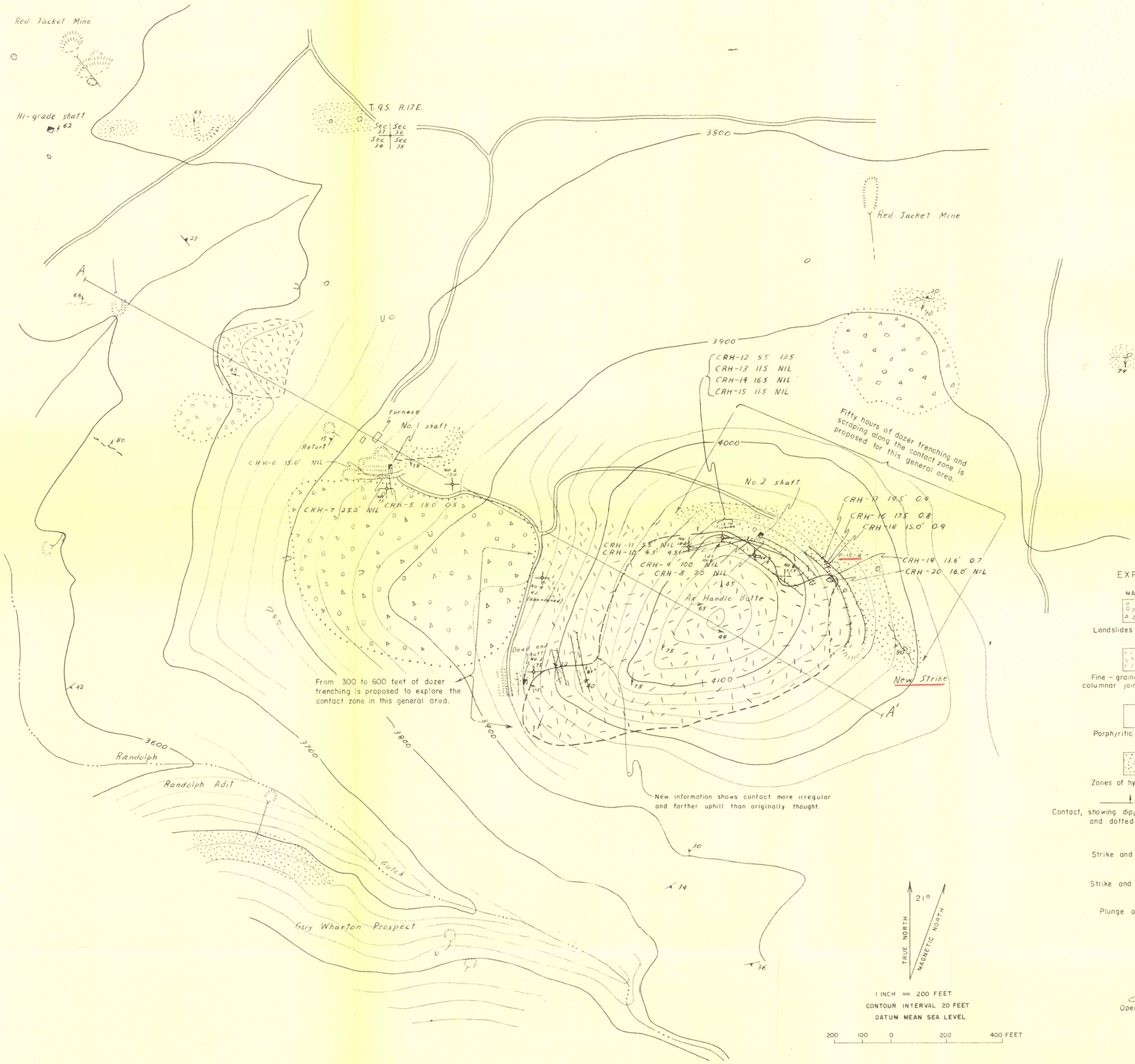
Your application for exploration assistance, dated December 31, 1957 submitted to our office at Spokane, Washington has been assigned Docket Number DMEA-4641 and referred to the Iron & Ferro Alloys Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

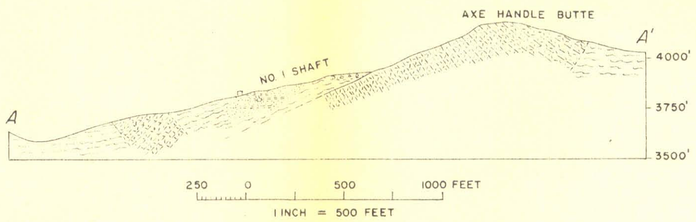
Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Code 400
Region I N.W.

6416





EXPLANATION

MAP SECTION

Landslides and creeping soil

Fine-grained andesite intrusive columnar jointing shows on section

Porphyritic andesite extrusive

Zones of hydrothermal alteration

Contact, showing dip; dashed where approximate and dotted where indefinite

Strike and dip of shear plane

Strike and dip of flow layering

Plunge of columnar joints

Shaft

Adit

Open-cut or pit

Dump

Proposed drill hole showing depth

Drill hole showing depth

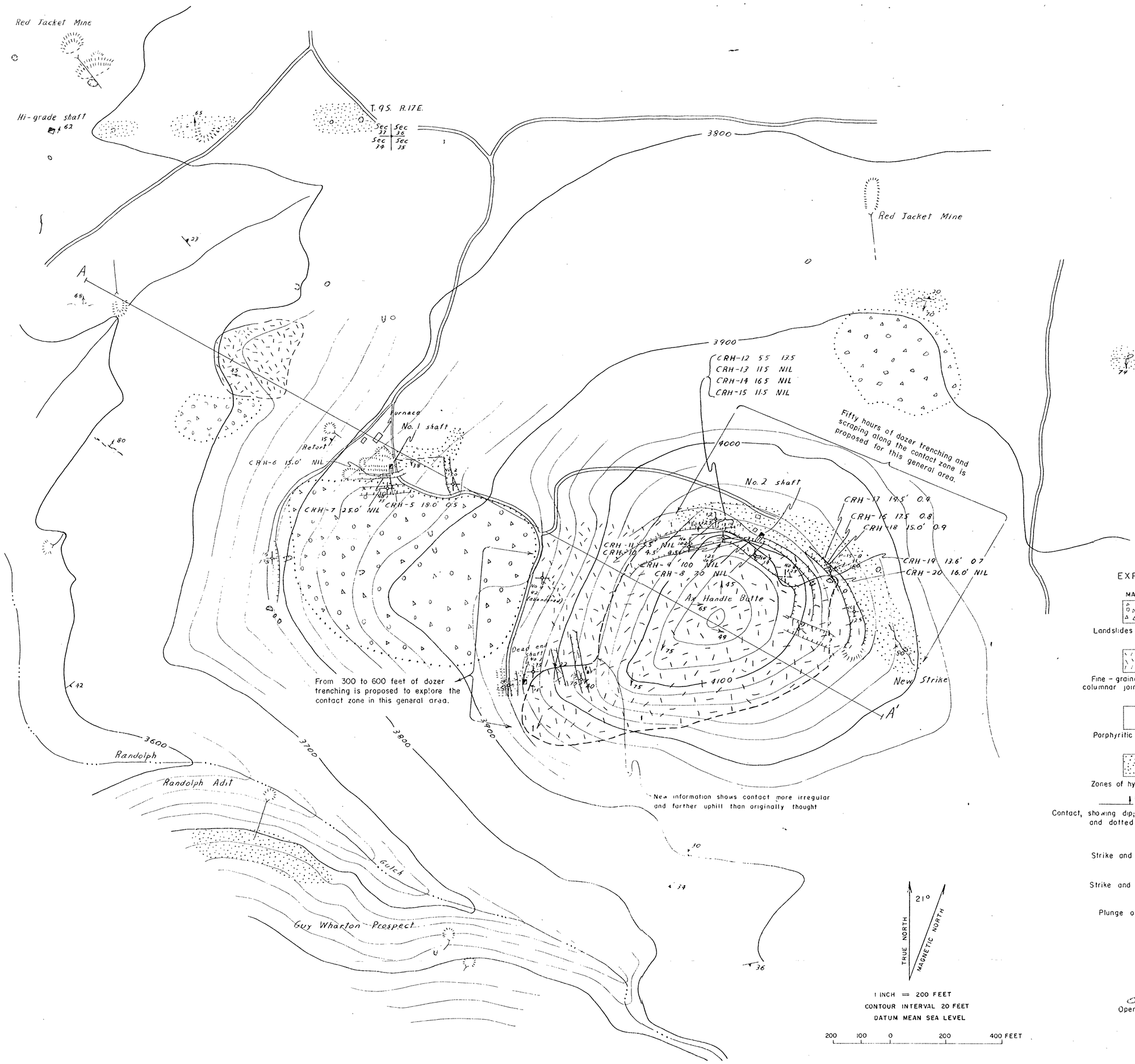
ASSAYS

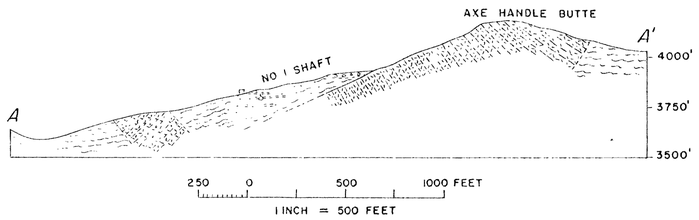
Sample No.	Length (feet)	Mercury (lbs./ton)
CRH-7	25.0'	NIL

GEOLOGIC MAP OF THE AXE HANDLE MINE AREA
HORSE HEAVEN DISTRICT
T. 9 S., R. 17 E., W. M.
Jefferson County, Oregon

JUNE 1958

AFTER PLATE 36, BY R.E. BROWN AND G.W. WALKER, 1942.
BULL 969, UNITED STATES GEOLOGICAL SURVEY.





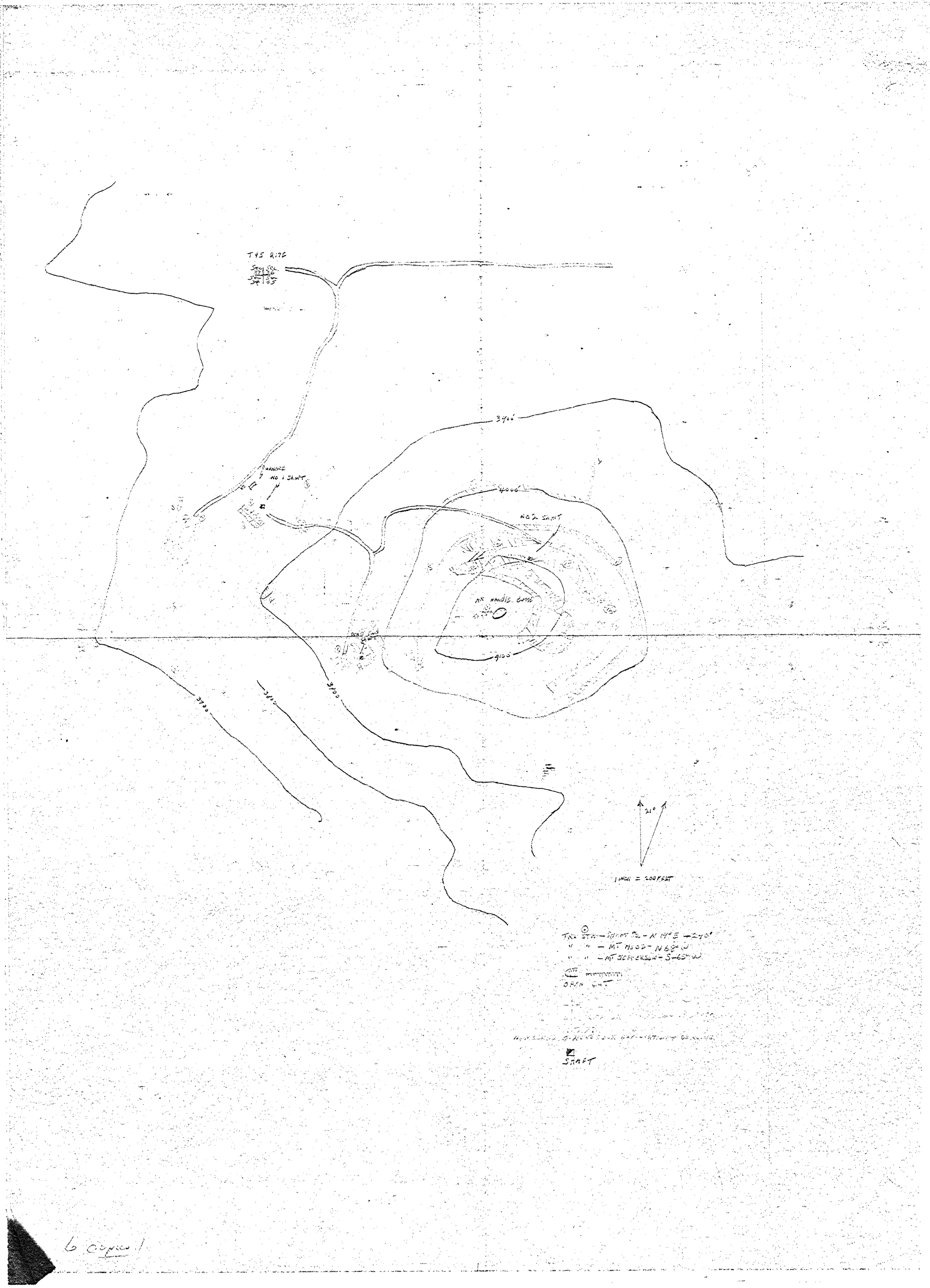
ASSAYS

Sample No.	Length (feet)	Mercury (lbs./ton)
CRH-7	25.0'	NIL

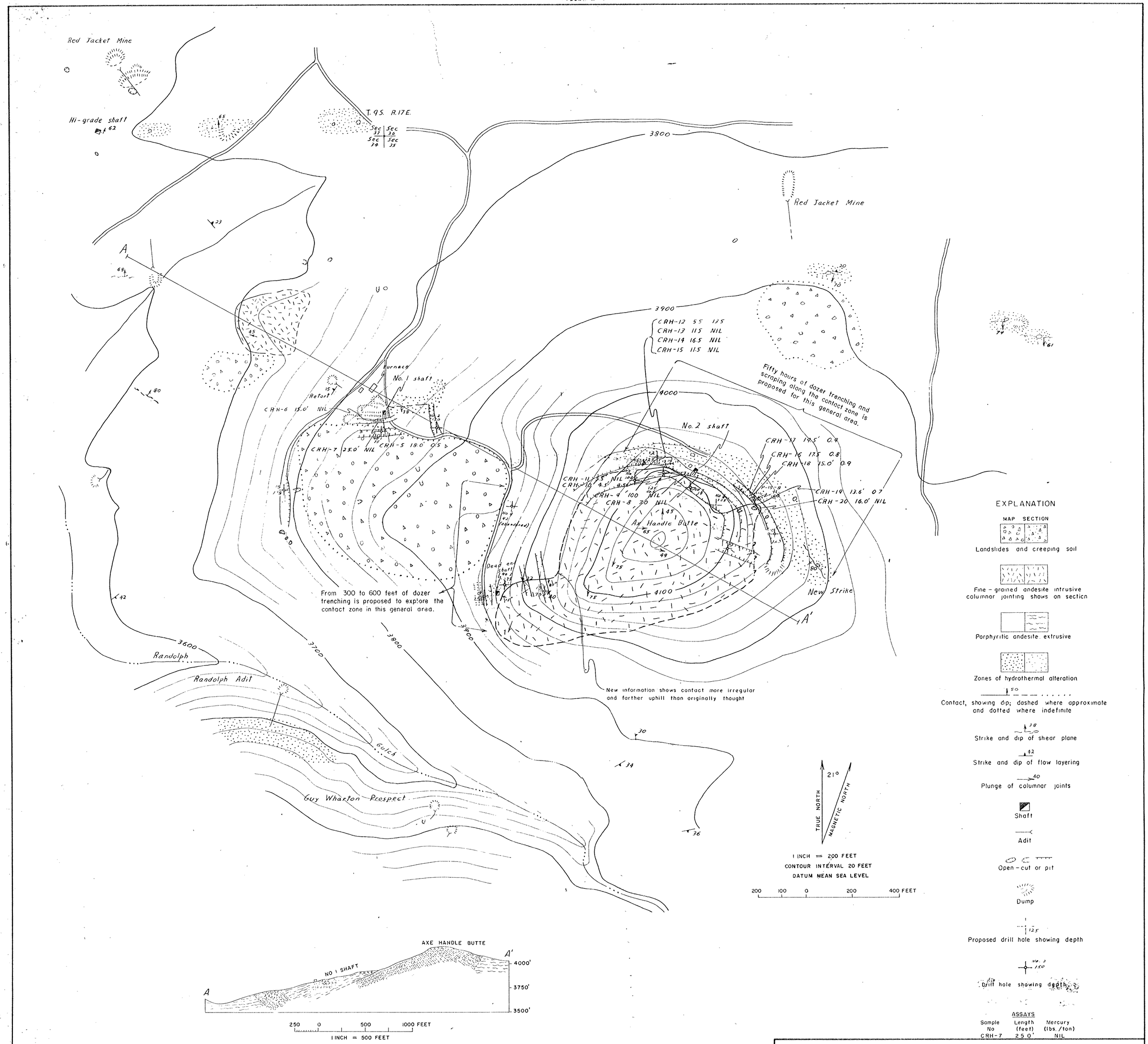
AFTER PLATE 36, BY R.E. BROWN AND G.W. WALKER, 1942.
BULL 969, UNITED STATES GEOLOGICAL SURVEY.

GEOLOGIC MAP OF THE AXE HANDLE MINE AREA
HORSE HEAVEN DISTRICT
T. 9 S., R. 17 E., W.M.
Jefferson County, Oregon

JUNE 1958


T 45 R 17E
Sec 1 Sec 36
Sec 34 Sec 35
3400'
4000'
4100'
3700'
3800'
3700'
NO 1 SHAFT
NO 2 SHAFT
AIR HANDLING BUILDING
21°
1 INCH = 200 FEET
SHAFT

6 copies



AFTER PLATE 36, BY R.E. BROWN AND G.W. WALKER, 1942.
BULL 969, UNITED STATES GEOLOGICAL SURVEY.

GEOLOGIC MAP OF THE AXE HANDLE MINE AREA
HORSE HEAVEN DISTRICT
T. 9 S., R. 17 E., W.M.
Jefferson County, Oregon

AUGUST 1958

PLATE I

METSKER'S MAP OF JEFFERSON COUNTY STATE OF OREGON

COMPILED BY CHAS. F. METSKER C.E.
212 SWETLAND BLDG., PORTLAND, OREGON
111 50. TENTH ST., TACOMA, WASH.
1020 THIRD AVE., SEATTLE, WASH.

WASCO COUNTY
DESCHUTES CO.
LINN COUNTY
WHEELER CO.
WARM SPRINGS INDIAN RESERVATION
DESCHUTES NATIONAL FOREST
PETRISA FOREST AREA

MADRAS
METOLIUS
GRANDVIEW
CULVER
OPAL SPRINGS
OPAL CITY
GENEVA
LAMONTA
GRIZZLY
HAY CREEK
AGENCY SIDING
MADRAS STA.
PAXTON
MECCA
WARM SPRINGS AGENCY
GATEWAY
ASHWOOD
KILTS P.O.
HORSE HEAVEN
MT. JEFFERSON

- LEGEND -
PAVED ROADS
STATE HWYS. NOT PAVED
GRAVELED ROADS
DIRT ROADS
INFERIOR ROADS
RAILROADS
INTERMITTENT CR.
TRAILS
SCHOOLS
CAMPS
RANGER STA.
NATL. FOREST BDRY.
STATE HWY. 97 FED. HWY. 27

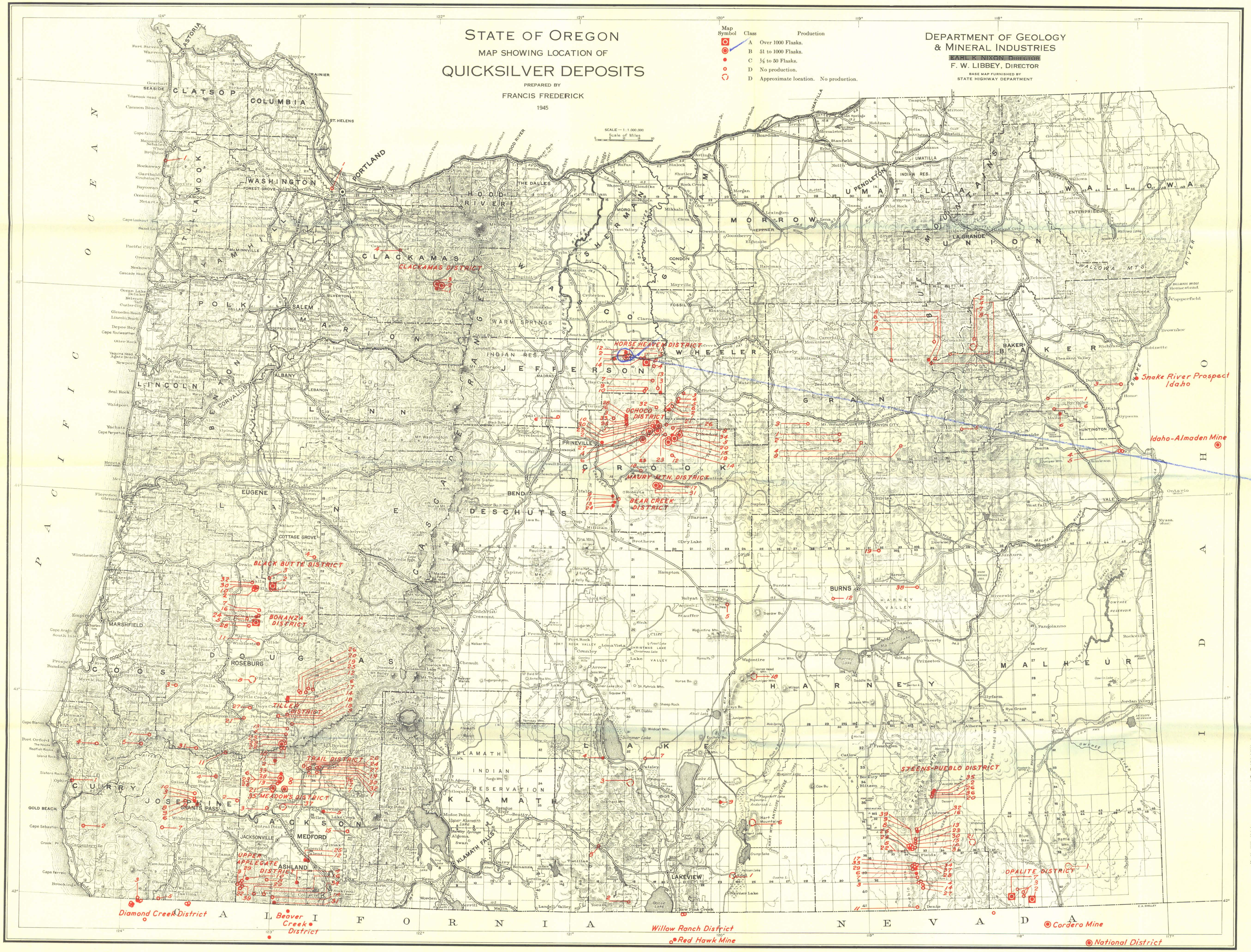
SCALE IN MILES
0 1 2 3 4 5 6 7 8 9 10

IT PAYS TO HAVE A FEW GOOD MAPS. BUY THE BEST -
"METSKER THE MAP MAN"
GOVERNMENT MAPS, STATE, COUNTY, TOWNSHIP, CITY, SECTION OR ADDITION MAPS, ANYTHING IN THE MAP LINE.
PHOTOSTATS - DRAFTING - BLUE PRINTING
MAP MOUNTING
METSKERS TOWNSHIP MAPS SHOW PROPERTIES & OWNERSHIPS

COPYRIGHT BY CHAS. F. METSKER

PRINTING BY "METSKER THE MAP MAN"

ITEM # 7.
REFERENCE COPY ONLY



QUICKSILVER MINES AND PROSPECTS

BAKER COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
—	Brindle Horse Mine	(Diadem Mine)			
1	Clark Creek Prospect	21	12S	41E	D
2	Columbia Gold Mine	5	9S	37E	D
3	Connor Creek Mine	34	11S	45E	D
4	Diadem Mine	17	10S	35E	D
5	Hiller Chrome-Cinnabar Mine	9	14S	36E	D
—	Lyons Mine	(Hiller Chrome-Cinnabar Mine)			
—	Mulkey Prospects	(White Wonder Claims)			
—	Paramount Quicksilver	(See Grant Co.)			
6	Quicksilver & Easy Money Claim	11	13S	41E	D
—	Quicksilver Claims	(Connor Creek Mine)			
7	"Sumpter" Placer		9S	37E	D
8	White Wonder Claim	SE35, 36	9S	35½E	D

CLACKAMAS COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Aimes Mine	5	6S	7E	C
2	Kiggins Mine	4, 5	6S	7E	B
3	Nisbet Mine	E5	6S	7E	B
4	North Fork Claims	SW7	4S	5E	D
—	Oak Grove Mine	(Kiggins Mine)			
—	Oak Grove Fork Mine	(Nisbet Mine) (Aimes Mine)			
—	Oregon Quicksilver, Inc.	(Nisbet Mine)			

COOS COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Fuller Quicksilver Prospect	10	32S	10W	D

CROOK COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Allison Property	26	13S	17E	C
2	Barnes Butte Mine	S28	14S	16E	C
—	Barney & Staley	(Staley Mine)			
3	Beale Prospect	18	13S	17E	D
4	Blevins Prospect	18	14S	19E	D
5	Blue Ridge Mine	SE15	14S	20E	B
6	Byram & Oscar Mine	23	14S	18E	B
7	Champion Mine	3	14S	19E	B
—	Cinnabar Mines, Inc.	(Blue Ridge Mine)			
8	Devils Food Mine	SE16, 21	14S	20E	C
9	Dunham Mine	31	17S	17E	C
10	Flag Creek Prospect	22, 27	13S	19E	C
11	Gervais Prospect	4	18S	17E	D
12	Gray Prairie Prospect	16, 21	15S	20E	D
—	Homestake Mercury Mines	(Johnson Cr. Mine)			
13	Ideal Mine	SE8	18S	17E	C
14	Independent Quicksilver Mine	20	14S	20E	D
15	Johnson Creek Mine	SW15, NW22	14S	20E	B
16	Kidnap Springs Prospect	23	13S	17E	D
17	Maury Mountain Mine	SE10, NE15	17S	19E	B
18	Moore Prospect	S15	16S	18E	D
19	Mother Lode Mine	20, 29	14S	20E	B
—	New Deal Mine	(Ideal Mine)			
20	Number One Mine	S15	14S	20E	B
21	Ochoco Mines	30	13S	20E	D
22	Ontko Prospect	33	13S	19E	D
—	Oronogo	(Dunham Mine)			
23	Peaslee Creek Prospect	NW18	14S	20E	D
24	Platner Mine	18, 19	18S	17E	C
—	Red Bird Hill Mine	(Ochoco Mines)			
25	Red Warrior	23, 26	13S	17E	D
26	Round Mountain Prospect	33	13S	20E	D
27	Staley Mine	E7	14S	19E	B
—	Staley & Towner Mine	(Towner Mine)			
28	Strickland Butte Mine	14	13S	17E	C
29	Taylor Ranch Mine	SE33	13S	19E	B
30	Taylor Ranch West Prospect	33	13S	19E	C
31	Towner Mine	S10, N15	17S	19E	B
32	Viewpoint Prospect	27, 28	12S	19E	D
33	Watson Property	23	13S	17E	C
34	Wesserling Prospect	W14	14S	20E	D
—	Wiltsee & Platner Mine	(Platner Mine)			

CURRY COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Clarno Prospect	9	35S	14W	D
—	Elixir Claim	(Olson & Needham)			
—	Feheley Claim	(Mountain Boomer)			
2	Glade Creek Quicksilver	29	37S	13W	D
3	Mountain Boomer Claim	16	41S	10W	D
—	Needham Claims	(Olson & Needham)			
4	Olson & Needham	35	32S	13W	D
—	Pistol River Mining Co.	(Glade Creek Quicksilver)			
—	Red Flat Placer	(Glade Creek Quicksilver)			
5	Rhyolite Claim	30	32S	10W	D

DOUGLAS COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Allen Prospect	W21	23S	4W	D
2	Abeene Property	18	25S	4W	D
3	Baldwin Prospect	7	29S	8W	D
4	Banfield Mine	34	31S	2W	D
—	Blakeley Prospect	(Glide Prospect)			
5	Bonanza Mine	S16	25S	4W	A
6	Buena Vista Mine	N34	29S	2W	C
7	Butte Prospects	SE26	24S	4W	D
8	Chaney Prospect	S½	28S	4W	D
—	Crispen Prospect	(Monte Carlo Claims)			
9	Drew Prospect	SE11	31S	2W	D
10	Elkhead Mine	NE21	23S	4W	B
11	Glide Prospect	23, 26	26S	4W	D
12	Gopher Mine	12	29S	1W	D
13	Harkins Prospect	22	31S	2W	D
14	James R. Group	S34	29S	2W	D
15	Lucky Cuss Claims	31	30S	2W	D
16	Manning Prospect	2, 3	25S	4W	D
17	Maud S. Mine	34	29S	2W	C
18	May Prospect	27	30S	2W	D
19	Mills Prospect	15	29S	1W	D
20	Monte Carlo Claims	S17	29S	1W	D
21	Morris Prospect	6	31S	4W	D
22	Mother Lode Mine	SW16, NW21	32S	2W	B
23	Nivinson Prospect	W16	32S	2W	D
24	Nonpareil Mine	3, 10	25S	4W	C
—	Pence & Howell	(Ross Claims)			
25	Pennell Prospect	11	29S	1W	D
—	Pollanz Group	(James R. Group)			
—	Red Cloud Mine	(Mother Lode Mine)			
26	Ross Claims	17, 18	29S	1W	D
27	Rowe Prospect	16	30S	4W	D
28	Sutherland Mine	20, 30	25S	4W	D
29	Thomason Group	16	32S	2W	D
30	Thompson Prospect	SW15	23S	4W	D
—	Umpqua Mining Co.	(Buena Vista Mine)			
—	S. Umpqua Mining Co.	(Banfield Mine)			
31	Victory Placer	33	32S	7W	D
32	Wilson Prospect	8	23S	4W	D

GRANT COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Cinnabar Mountain Claims	18	14S	30E	D
2	Dead Horse Creek Prospect	30	14S	30E	D
—	Diadem Mine	(Diadem Mine, Baker Co.)			
—	Golden Fleece Mine	(Paramount Quicksilver Mine)			
3	Gray Prospect	29	13S	28E	D
—	Hacheney-Johnson Claims	(Cinnabar Mountain Claims)			
4	Haight Prospect	N33	14S	31E	D
—	Hidden Treasure Mine	(IXL Mine)			
5	IXL Mine	10	10S	35E	D
6	Paramount Quicksilver Mine	8	10S	35E	C
7	Red Boy Mine	10	9S	35E	D
8	"Susanville Placer"	7	10S	33E	D
—	Viewpoint Claim	(Cinnabar Mountain Claims)			
9	Wild Cat Basin Prospect	N½	15S	33E	D

HARNEY COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
—	Aile Rouge Mercury Claim	(Stewart's Claims)			
1	Ajax Group	1, 12	39S	34E	D
2	Alexander Mine	NE30	34S	34E	C
3	Apache Prospects	SW6	40S	35E	D
4	Arizona Mine	NE6	40S	35E	D
5	Blue Boy Claim	S25	37S	32¾E	D
6	Blue Bull Group	N24	39S	34E	C
7	Cash Group	E25	39S	34E	D
8	Connor-Blair Group	S23, N26	37S	32¾E	D
9	Crimson Rose Group	25	37S	32¾E	D
—	Doan Prospect	(Fisher Group)			
10	Dorose Group	30	37S	33E	D
11	Double Link Prospect	13	41S	34E	D
12	Duncan Prospect	26	23S	29E	D
13	El Dorado Claims	7	37S	33E	D
14	Farnham Group	8	40S	35E	D
15	Fields Lode Claim	S18	37S	33E	D
16	Fisher Group	29	36S	33E	C
17	Harmony Claims	1, 2	39S	34E	D
18	Horse Head Mountains Prospect	N½	28S	25E	D
19	Idle City Placer Prospect	SW4	21S	32E	D
—	Indian Chief Claims	(Last Chance)			
—	Indian Creek Claims	(Pike Claim)			
20	Last Chance and Indian Chief Claims	S30	34S	34E	D
21	Lucky Boy	16	37S	36E	D
22	Lucky Strike Group (Doan's)	S25	37S	32¾E	D
23	Lucky Strike Group (Shull's)	N18	37S	33E	D
24	Mogul Cinnabar Mine	26	37S	32¾E	C

HARNEY COUNTY—Continued

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
25	North O'Keeffe Claims	SW23	37S	32¾E	D
26	Pike Claim, Indian Creek Claims	SE30	34S	34E	D
27	Pueblo Group	S8, N17	40S	35E	D
28	Rabbit Hole Group	W12	39S	34E	C
29	Red Bull Group	11	39S	34E	
30	Red Dome Claim	18	37S	33E	D
31	Red Hill Claims	30	37S	33E	D
—	Red King Group	(Red Bull Group)			
32	Sheepherder Claims	NW29	36S	33E	D
33	South O'Keeffe Claims	SW2	39S	35E	D
34	Spring Creek Claim	NW12	39S	35E	D
35	Steens Mountain Mine	19, 20	34S	34E	C
36	Stewart's Claims	SE30	34S	34E	D
37	Surprise Claims	1, 12	39S	34E	D
38	Valley-View Prospect	NW11	23S	33E	D
39	White Pick Claim & Globe Springs Claim	25	37S	32¾E	D

JACKSON COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Ash Prospect	35, 36; 1	33S; 34S	1W; 1W	D
2	Bonita Mine	13	33S	3W	C
3	Booth Prospect	3	36S	3W	D
4	Brick Pile Prospect	4, 9	40S	1W	C
—	Brown Prospect	(Brownsboro Clay & Q. S.)			
5	Brownsboro Clay & Q. S.	11	36S	1E	C
—	Cantrell	(Davison Prospect)			
6	Chisholm Mine	S17, N20	34S	2W	C
7	Cinnabar Mountain Mine	SW34	34S	2W	B
8	Copus Prospect	2	40S	3W	D
9	Curl Prospect	18	40S	4W	D
10	Davison, Cantrell & Hyde Prospect	3, NW2	40S	4W	C
11	Elkhorn Claim	W21	32S	2W	D
—	Force Mine	(Quicksilver Producers Mine)			
12	Forty-Nine Diggings	31	38S	1E	C
13	Frost Claims	20	34S	2W	D
—	Hyde	(Davison Prospect)			
14	Jeldness & Rhodes	NE6	41S	2W	D
15	Jolly Prospect	8	37S	3E	D
16	Juby Lode	SW31	40S	3W	D
—	Laurel Claim	(Rattlesnake Group)			
—	Little Jean Mine	(Chisholm Mine)			
17	Long Branch Mine	24	34S	2W	D
—	Lucky Strike Mine	(Cinnabar Mountain Mine)			
18	Mammoth Lode	20, 21, 28, 29	32S	2W	D
—	Meridian Mine	(Phillips Mine)			
19	Midnight Prospect	S28	33S	1E	D
20	Mock Gulch Claims	NE17	40S	4W	D
21	Mountain King Mine	SE36	34S	3W	B
22	No Name Prospect	20	40S	4W	D
—	Oreg. Montana Mining Milling & Mfg. Co.	(Brick Pile Mine)			
—	Pacific Syndicate Mine	(Cinnabar Mountain Mine)			
23	Palomar Mine	E17	34S	2W	C
24	Pence Prospect	S25	33S	1W	D
25	Phillips Mine	SE36	38S	1W	C
26	Pitt View Prospect	SW22	33S	1W	D
27	Poole Prospect	NE36, SE25	33S	1W	D
28	Quicksilver Producers Mine	NE20	34S	2W	C
—	Rainbow Claim	(Rattlesnake Group)			
—	Rainier Mine	(War Eagle Mine)			
29	Rattlesnake Group	SW9, NE8	40S	4W	D
30	Rayome Prospect	NE32, NW33	33S	1E	D
—	Red Chief Claim	(Rogue River Claims)			
—	Red Feather Group	(Ruby Group)			
31	Red Star Claim	17	41S	2W	C
—	Rogue Elk Claim	(Rogue River Claims)			
32	Rogue River Claims	SW33	33S	1E	D
33	Roxana Group	4, 5, 8, 9	34S	2W	C
34	Ruby Group	SE34, SW35	40S	3W	D
—	Sagar & Hull Mine	(Long Branch Mine)			
—	Sams Valley Area	(Table Mountain Prospect)			
35	Seventy-three Cinnabar Group	1	35S	3W	D
36	Shull Prospect	13	34S	2W	D
—	Stanley Prospect	(Brownsboro Clay & Q. S.)			
37	Table Mountain Prospect	35, 36	S	2W	D
—	Thelma Claim	(Rogue River Claims)			
—	Utah Quicksilver Mine	(War Eagle Mine)			
38	War Eagle Mine	16, N17	34S	2W	B
—	Webb & Tainor Mine	(Cinnabar Mountain Mine)			
39	Woodpecker Group	SW16, NW21	40S	4W	D

JEFFERSON COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Ashwood Prospect	6	10S	17E	C
2	Axehandle Mine	35	9S	17E	B
3	Bear Creek Mine	35	11S	19E	C
4	Cherry Creek Prospect	SW16	10S	19E	D
5	Crosby Mercury Claims	2	10S	18E	D
—	Degner Prospect	(Crosby Mercury Claims)			
6	Gray Butte Prospect	SE13	13S	13E	D
7	Horse Creek Prospect	SE8	11S	19E	D
8	Horse Heaven Mine	12	10S	18E	A
—	Louther (Lowther)	(Axehandle)			
9	Opal Creek Prospect	NE25	11S	18E	D
10	Opal Mountain Prospect	NE35	11S	18E	D
11	Prospect	36	9S	17E	D
12	Red Jacket Gold & Silver Mine	26	9S	17E	C
13	Roark Prospect	22 or 27	11S	19E	D
14	Roark & Lowrey Prospect	NE3	10S	18E	D
—	Stephenson Prospect	(Cherry Creek Prospect)			
—	Yates Prospect	(Crosby Mercury Claims)			

JOSEPHINE COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Carnagie Mine	33	35S	7W	C
2	Centennial Mine	25	35S	5W	D
—	Columbian Mine	(Centennial Mine)			
3	Contact Group	28	35S	7W	D
4	Copper Queen Mine	15	34S	6W	D
5	Eggers & Hance Prospects	15	41S	9W	D
6	Empire Mine	NW3	36S	7W	C
7	Last Chance Group	E15	37S	9W	D
—	Mercury King	(Red Ledge Cinnabar Claim)			
8	Postem Prospect	36	35S	8W	D
9	Red Ledge Cinnabar Claim	1, 12	36S	8W	D
10	Wolfe Prospect	16	35S	7W	D
11	Young Prospect	6	33S	5W	D

LAKE COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Adel Prospect		39S	24E	D
2	Batman Prospect	4	41S	18E	D
3	Chewaucan River Prospect	9, 16	34S	18E	D
4	Currier Mine	36	32S	16E	C
5	Glass Butte Property	34; 3	23S; 24S	23E; 23E	D
6	Hart Mountain Prospect		36S	25E	D
7	Kingwell Prospect	32	32S	19E	D
8	Quartz Mountain Prospect	34	37S	16E	D
9	Windy Hollow Mine	15	35S	23E	C

LANE COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Bald Butte	21	23S	3W	D
2	Black Butte Mine	16	23S	3W	A
—	Cinnabar Mountain	(Bald Butte)			
3	Hobart Butte	32	22S	3W	D
4	Pitcher Prospect	26	21S	1W	D
—	Shoestring Creek Prospect	(Pitcher Prospect)			
—	Sullivan Prospect	(Bald Butte)			

MALHEUR COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Alcorte Prospect		39S	43E	D
2	Bretz Mine	3	41S	41E	A
3	Bretz Prospects		40S	40, 41E	D
4	Clay-Cinnabar Prospect		15S	45E	D
5	Lackey Cinnabar Group	NE27, SE22	15S	45E	D
6	Morton Land	NE19 & 18	13S	42E	C
7	Opalite	33	40S	40E	A
—	Stan & Berry Group	(Lackey Cinnabar Group)			

MULTNOMAH COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Portland Tunnel	S30	1N	1E	D

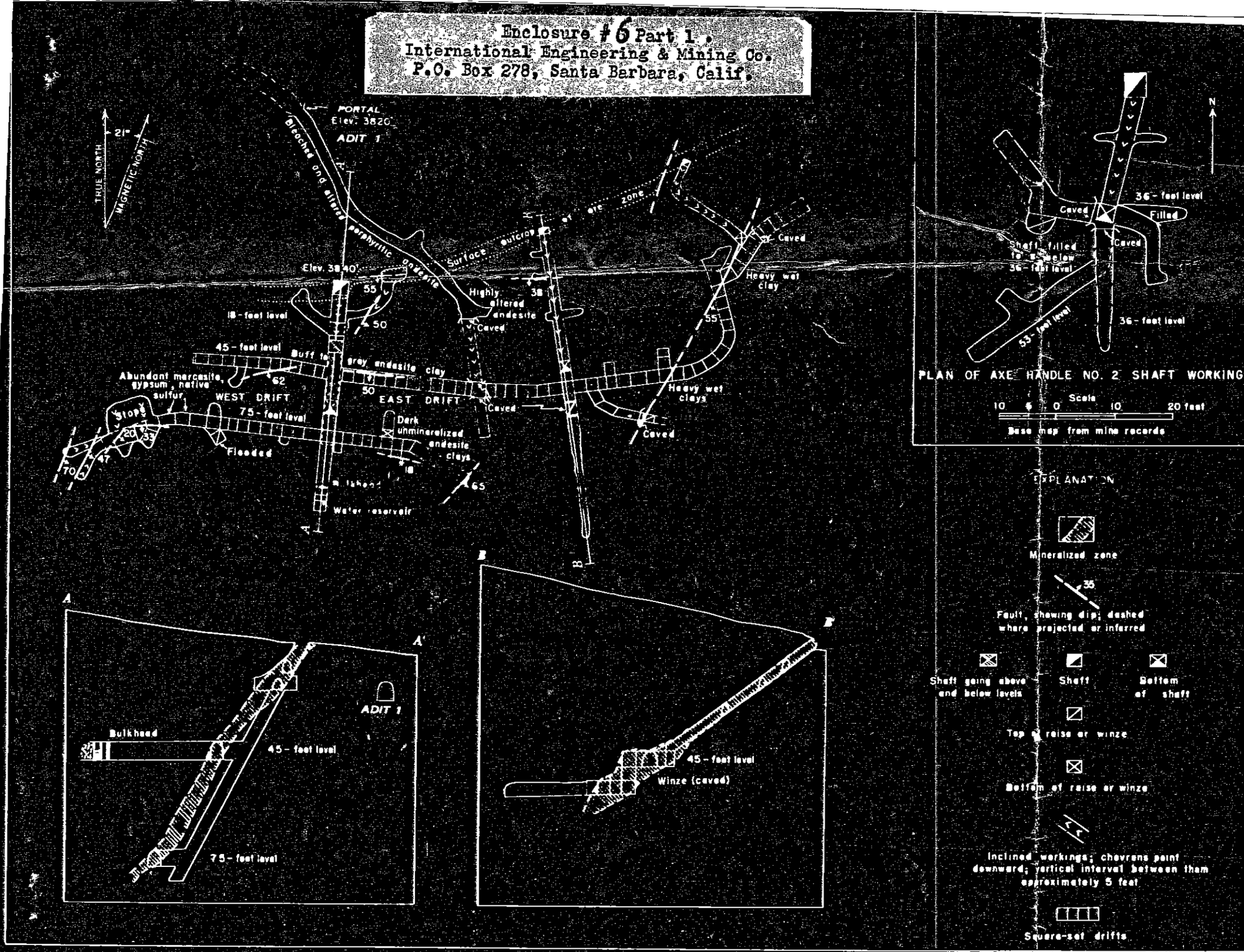
TILLAMOOK COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Watrous Prospect	E20	2N	10W	D

WHEELER COUNTY

Map No.	Mine or Prospect Name	Location: Section	T	R	Production Class
1	Bear Claims	32	12S	20E	C
2	Beaver Guard Prospect	27, 28	12S	20E	D
—	Carrol Butte Mine	(Mercury King Mine)			
3	Gage Ranch Prospect	Near SW cor.	11S	21E	D
4	Howard Ranch Prospect	SE10	12S	20E	D
5	McTimmonds Ranch Mine	NE15	12S	20E	C
6	Mercury King Mine	S31	12S	20E	D

Enclosure #6 Part 1.
International Engineering & Mining Co.
P.O. Box 278, Santa Barbara, Calif.



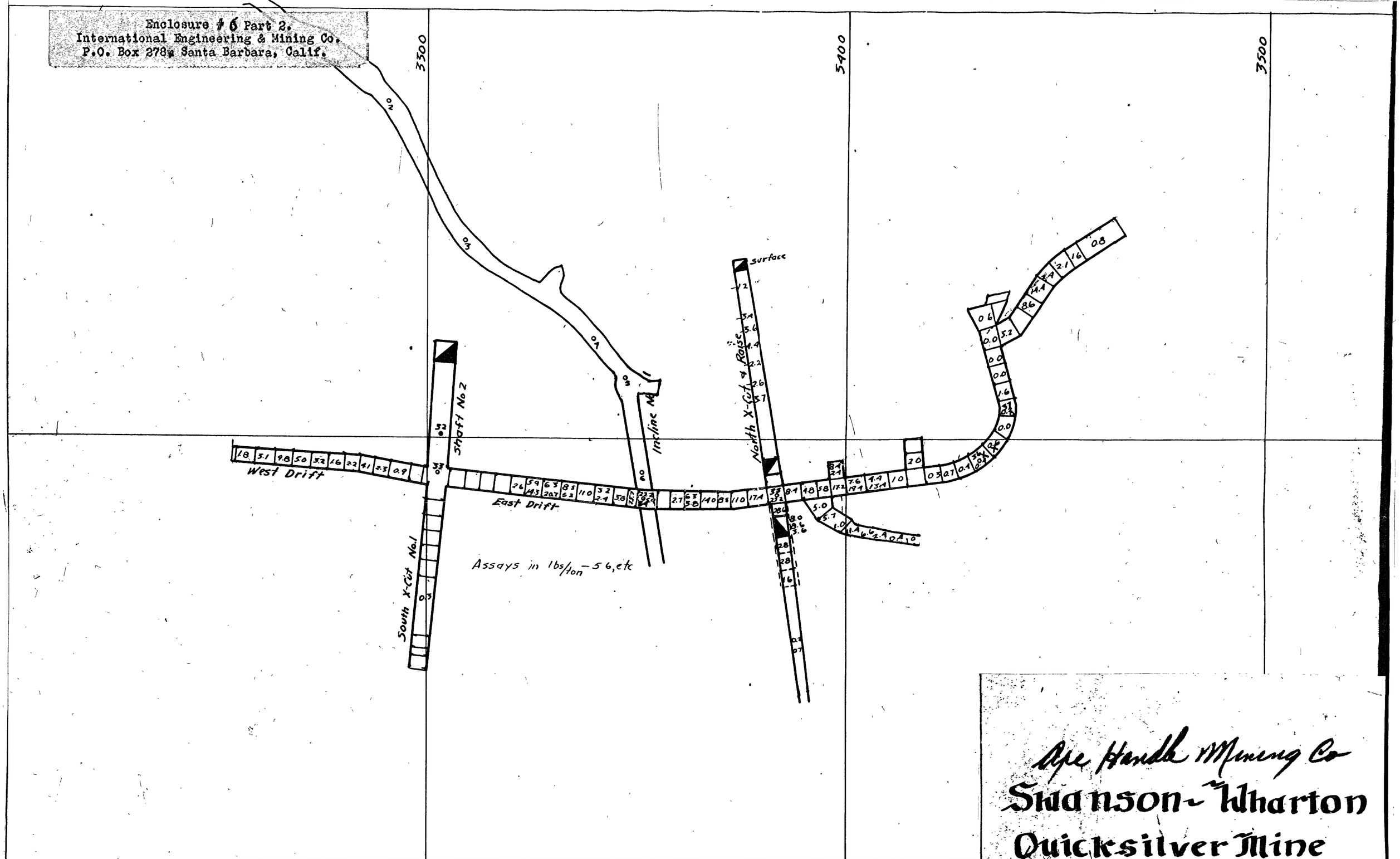
PLAN AND SECTIONS OF SHAFT 1 WORKINGS AND PLAN OF SHAFT 2 WORKINGS, AXE HANDLE MINE, JEFFERSON COUNTY, OREGON

20 0 20 Feet

Geology by R.E. Brown and G.W. Walker, 1943

903601 O - 51 (In envelope) No. 16

Enclosure # 6 Part 2.
International Engineering & Mining Co.
P.O. Box 278, Santa Barbara, Calif.

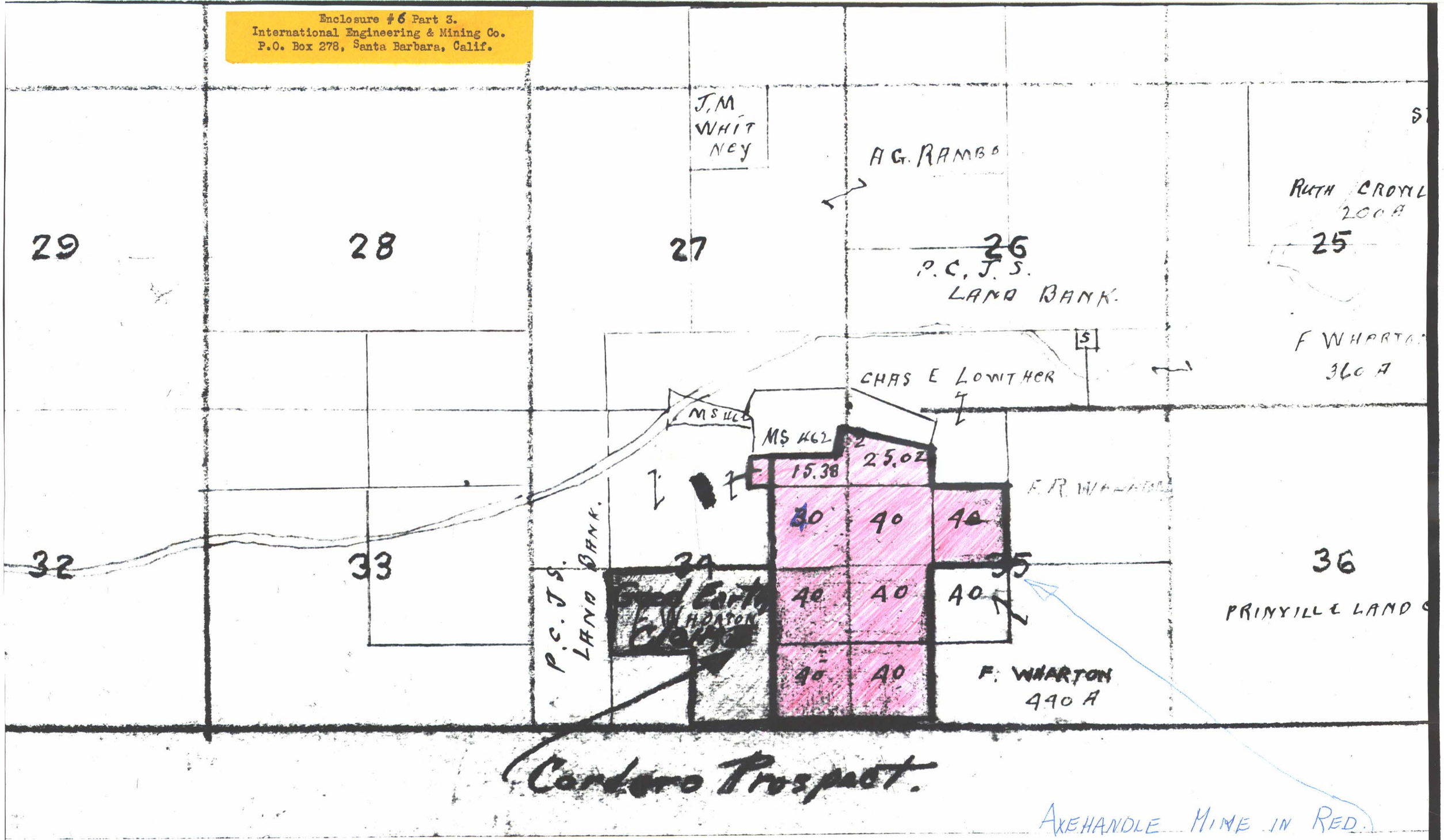


Ape Handle Mining Co

Swanson-Wharton Quicksilver Mine

TWSP 9 SOUTH, RANGE 17 EAST
Jefferson County, Ore.
SCALE 1 IN = 20 FT.

Surveyed by R. Leigh Traced by Bartell

1100 2-8-40

Enclosure #6 Part 3.
International Engineering & Mining Co.
P.O. Box 278, Santa Barbara, Calif.