

FORM PD II9

MONTHLY REPORT OF PURCHASES
PREFERENCE RATING ORDER P*56

Name of Mine Operator COUGAR INDEPENDENCE MINING CO.

Address BAKER. OREGON Mine serial No. 33-22

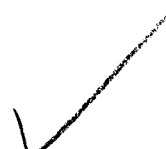
Purchases made for month of MAY 1942.

Nothing to report.

June 8th. 1942.

F. E. Coffey
F. E. Coffey

Manager.



Form PD II9

MONTHLY REPORT OF PURCHASES
PREFERENCE RATING ORDER P-56

Name of Mine Operator COUGAR INDEPENDENCE MINING CO.

Address GRANITE.OREGON.

Mine serial No. 33-22

Nothing to report.

April 4th. 1942.

J. E. Collier
F. E. Collier

Manager.

RECEIVED
MAY 5 - 1942
STATE DEPT OF GEOLOGY
& MINERAL INDS.

MONTHLY REPORT OF PURCHASES

MACHINERY, SUPPLIES, MAINTENANCE ITEMS AND REPAIRS UNDER PREFERENCE RATING ORDER P-56

Name of mine operator or authorized agent for such operator Cougar Independence Mining Co.

Address 2523 Valley Ave. Baker. Oregon. Mine serial No. 33-22

Purchases made in month of March, 1942

(Instructions.—This report is to be filed with the Emergency Coordinator of Mines for your State, on or before the 10th day of the month following the month covered by this report. Group all orders for similar materials which were bought from the same supplier. Make as few separate entries as possible. However, purchases of the same material from different suppliers must be shown separately. In II, III, and IV, enter the authorization number—not to be confused with your mine serial number—which was issued to you by O. P. M., permitting the purchase of the material listed. Retain copies of all these reports in your files.)

I. PURCHASES TO WHICH RATING A-8 HAS BEEN APPLIED DURING MONTH:

Material _____ Quantity _____ Supplier Nothing to report.

II. PURCHASES TO WHICH RATING A-3 HAS BEEN APPLIED DURING MONTH:

Material _____ Quantity _____ Supplier _____ O. P. M. Authorization No. _____

III. PURCHASES TO WHICH RATING A-1-c HAS BEEN APPLIED DURING MONTH:

Material _____ Quantity _____ Supplier _____ O. P. M. Authorization No. _____

IV. PURCHASES TO WHICH RATING A-1-a HAS BEEN APPLIED DURING MONTH:

Material _____ Quantity _____ Supplier _____ O. P. M. Authorization No. _____

CERTIFICATION

The undersigned hereby certifies to the Office of Production Management, that

- (1) he executed the foregoing statement on behalf of and by authority of the above-named Mine Operator;
- (2) the above-named Mine Operator has, during the period covered by this report, complied with all the provisions of Preference Rating Order P-56 and has applied Ratings only in accordance therewith;
- (3) during such period the Mine Operator's inventory of operating supplies and other material has not been greater than the minimum necessary for the efficient operation of his business, and the ratio of inventory (quantity) to current production has not exceeded the ratio of average year-end inventory (quantity) to average production for the years 1938, 1939, and 1940;
- (4) the facts stated herein are, to the best of his knowledge and belief, true and correct.

April 10th (Date) Frank Coffey (Signature of authorized official) Office Manager. (Title)

(Section 35 of the Criminal Code, 18 U. S. C. 80, makes it a criminal offense to make a false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.)

MONTHLY REPORT OF PURCHASES.
PREFERENCE RATING ORDER P-56

Name of Mine Operator Cougar Independence Mining Co.

Address Granite. Oregon. Mine serial No. 33-22

Purchases made in month of February. 1942.

II. Purchases to which RATING A-3 Has been applied during month:

MATERIAL	QUANTITY	SUPPLIER
2 Casing Rings for Motor Pump	2	Ingersoll-Rand Co
I Shaft Sleeve " " "	I	" " "

The undersigned hereby certifies to the office of Production Managment, that

- (1) he executed the foregoing statement on behalf of and by authority of the above named Mine Operator;
- (2) the above named Mine Operator has, during the period covered by this report, complied with all the provisions of Preference Rating Order P-56 and has applied Ratings only in accordance with;
- (3) during such period the Mine Operator's inventory of operating supplies and other material has not been greater than the minimum necessary for the efficient operation of his business, and the ratio of inventory (quantity) to current production has not exceeded the ratio of average year-end inventory (quantity) to average production for the years 1938, 1939 and 1940;
- (4) the facts stated herein are, to the best of his knowledge and belief, true and correct.

February 7th. 1942.

G. T. Vandel
G.T. Vandel

Gen. Superintendent.

RECEIVED
MAR 9 - 1942
STATE DEPT OF GEOLOGY
& MINERAL INDS.



(This form may be reproduced; copies may be made large enough to allow as much space as needed to enter all purchases)

MONTHLY REPORT OF PURCHASES
SUPPLIES, MAINTENANCE ITEMS AND REPAIRS UNDER
PREFERENCE RATING ORDER P-56

NAME OF MINE OPERATOR OR AUTHORIZED AGENT FOR SUCH OPERATOR Cougar Independence Mining Co.
ADDRESS Granite, Oregon MINE SERIAL NO. 33 - 22

PURCHASES MADE IN MONTH OF January 19 42.

(INSTRUCTIONS: This report is to be filed with the Emergency Coordinator of Mines for your State, on or before the 10th day of the month following the month covered by this report. Group all orders for similar materials which were bought from the same supplier. Make as few separate entries as possible. However, purchases of the same material from different suppliers must be shown separately. In II, enter the authorization number which was issued to you by O.P.M., permitting the purchase of the material listed. Retain copies of all these reports in your files.)

- I. PURCHASES TO WHICH RATING A-8 HAS BEEN APPLIED DURING MONTH
- | MATERIAL | QUANTITY | SUPPLIER | |
|----------|----------|----------|--------------------|
| | | | NOTHING TO REPORT. |
- II. PURCHASES TO WHICH RATING A-1-a HAS BEEN APPLIED DURING MONTH
- | MATERIAL | QUANTITY | SUPPLIER | O.P.M. AUTHORIZATION NUMBER |
|----------|----------|----------|-----------------------------|
| | | | |

CERTIFICATION.

The undersigned hereby certifies to the Office of Production Management, that

- (1) he executed the foregoing statement on behalf of and by authority of the above named Mine Operator;
- (2) the above named Mine Operator has, during the period covered by this report, complied with all the provisions of Preference Rating Order P-56;
- (3) during such period the Mine Operator's inventory of operating supplies and other material has not been greater than the minimum necessary for the efficient operation of his business, and the ratio of inventory (quantity) to current production has not exceeded the ratio of average year-end inventory (quantity) to average production for the years 1938, 1939, and 1940;
- (4) the facts stated herein are, to the best of his knowledge and belief, true and correct.

February 7th.
(Date)

Charles J. Vardell
(Signature of Authorized Official)

General Superintendent
(Title)

(Section 35 of the Criminal Code, 18 U.S.C. 80, makes it a criminal offense to make a false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.)

MONTHLY REPORT OF PURCHASES
PREFERENCE RATING ORDER P-56

Name of Mine Operator or
Authorized Agent for Such Operator COUGAR INDEPENDENCE MINING COMPANY

Address GRANITE, OREGON Mine Serial No. 33 - 22

Purchases Made in Month DECEMBER, 1942

=====

(INSTRUCTIONS. This report is to be filed with the Emergency Coordinator of Mines for your State, on or before the 10th day of the month following the month covered by this report. Group all orders for similar materials which were bought from the same supplier. Make as few separate entries as possible. However, purchases of the same material from different suppliers must be shown separately. In II, III and IV, enter the authorization number - not to be confused with your mine serial number - which was issued to you by O.P.M., permitting the purchase of the material listed. Retain copies of all these reports in your files.)

I. PURCHASES TO WHICH RATING A - 8 HAS BEEN APPLIED DURING MONTH:

<u>MATERIAL</u>	<u>QUANTITY</u>	<u>SUPPLIER</u>
360' - 3/8" Crucible Steel Cable	360'	BASCHE-SAGE HDW. CO., Baker, Oregon
7/8" Chucks for D-73 Rock Drill	2	" " "
No. 10 Single Wire Electrical Cable	800'	General Electric Supply Corp., Portland, Oregon
GE Renewable Enclosed Fuses	24	" " " "
Motor Bearings for Pump Motor	2	Ingersoll-Rand Company Salt Lake City, Utah
Bronze Shaft Sleeve for Pump	1	" " "

CERTIFICATION

The Undersigned Hereby Certifies to the Office of Production Management, That

- (1) he executed the foregoing statement on behalf of and by authority of the above named Mine-Operator;
- (2) the above-named Mine Operator has, during the period covered by this report, complied with all the provisions of Preference Rating Order P-56 and has applied Ratings only in accordance therewith;

- (3) during such period the Mine Operators inventory of operating supplies and other materials has not been greater than the minimum necessary for the efficient operation of his business, and the ratio of inventory (quantity) to current production has not exceeded the ratio of average year-end inventory (quantity) to average production for the years 1938, 1939, 1940;
- (4) the facts stated herein are, to the best of his knowledge and belief, true and correct.

January 9, 1942

G. T. Vandell

Gailen T. Vandell

G.T. Vandell

General Superintendent

(Section 35 of the Criminal Code, 18 U.S.C. 80, makes it a criminal offense to make a false statement or representation to any department or agency of the United States as to any matter within its jurisdiction)

MONTHLY REPORT OF PURCHASES
SUPPLIES, MAINTENANCE ITEMS AND REPAIRS UNDER
PREFERENCE RATING ORDER P-56

NAME OF MINE OR AUTHORIZED AGENT FOR SUCH OPERATOR Cougar Independence Mining Company
G. T. Vandel, General Superintendent
 ADDRESS Granite, Oregon MINE SERIAL NO. 33 - 22

PURCHASES MADE IN MONTH OF November 1941

(INSTRUCTIONS: This report is to be filed with the Emergency Coordinator of Mines for your State, on or before the 10th day of the month following the month covered by this report. Group all orders for similar materials which were bought from the same supplier. Make as few separate entries as possible. However, purchases of the same material from different suppliers must be shown separately. In II, enter the authorization number which was issued to you by O.P.M., permitting the purchase of the material listed. Retain copies of all these reports in your files.)

I. PURCHASES TO WHICH A-8 HAS BEEN APPLIED DURING MONTH

<u>MATERIAL</u>	<u>QUANTITY</u>	<u>SUPPLIER</u>
Decaloy Cases for Sand Pump	2	Denver Equipment Co., Denver, Colorado
" Runners " " "	2	" " "
" Wear Plates " " "	2	" " "

CERTIFICATION

The undersigned hereby certifies to the Office of Production Management, that

- (1) he executed the foregoing statement on behalf of and by authority of the above named Mine Operator;
- (2) the above named Mine Operator has, during the period covered by this report, complied with all the provisions of Preference Rating Order P-56;
- (3) during such period the Mine Operator's inventory of operating supplies and other materials has not been greater than the minimum necessary for the efficient operation of his business, and the ratio of inventory (quantity) to current production has not exceeded the ratio of average year-end inventory (quantity) to average production for the years 1938, 1939 and 1940;
- (4) the facts stated herein are, to the best of his knowledge and belief, true and correct.

December 8, 1941 Gailen T. Vandel General Superintendent
 (Date) (Signature of Authorized Official) (Title)

(Section 35 of the Criminal Code, 18 U.S.C. 80, makes it a criminal offense to make a false statement or representation to any department or agency of the United States as to any matter within its jurisdiction)

TIME INDICATED

Mackay Radio



Postal Telegraph

15 WORDS FOR THE **10**
USUAL PRICE OF
DOMESTIC SERVICES
FOREIGN SERVICES
AT STANDARD RATES

DCC 4

THE FOLLOWING MESSAGE WAS RECEIVED

"VIA MACKAY RADIO"

3HBCW 13 NL GOVT

133

OP WASHINGTON DC MAR 27 1942

MR EARL K NIXON STATE DEPT OF GEOLOGY

PORTLAND.

SERIAL NUMBER OF COUGER INDEPENDENCE MINING COMPANY, GRANITE,
REINSTATED AS OF THIS DATE

WILBUR A NELSON ADMR OF MINING BRANCH
WAR PRODN BOARD

650AM MAR 28

RECEIVED
MAR 28 1942

STATE DEPT OF GEOLOGY
& MINERAL INDS.

TO SEND A MESSAGE TELEPHONE YOUR LOCAL MACKAY RADIO OFFICE OR ANY POSTAL TELEGRAPH OFFICE.

NEW YORK.....WHEATWALL 4-6780	DETROIT.....RANDOLPH 1555	SAN FRANCISCO.....GARFIELD 1303	SEATTLE.....ELLIOT 4212
CHICAGO.....HARRISON 1215	WASHINGTON.....NATIONAL 6600	OAKLAND.....TEMPLEBAR 3360	TACOMA.....MAIN 6101
BOSTON.....CAPITOL 1234	BALTIMORE.....PLAZA 7210	LOS ANGELES.....TRINITY 0731	PORTLAND.....ATWATER 6484
PHILADELPHIA.....LOCUST 3740	CAMDEN.....CAMDEN 3296	SAN DIEGO.....MAIN 4177	NEW ORLEANS.....RAYMOND 9237
.....BROAD 5221			

FOR MESSENGER TELEPHONE POSTAL TELEGRAPH OR RING POSTAL CALL BOX.

COUGAR MINE

(1)

QUARTZ MINES

BALD MT. -
ELKHORN
GRANITE
DISTRICT

The quartz mines situated along the western border of the granodiorite intrusion are practically all in the irregular patches of argillites exposed between the intrusion and the recent lava flows.

The quartz mines, beginning with the one farthest to the south, are the Cougar, Independence, Magnolia, Buffalo, Blue Ribbon and La Belleview in argillite, and the Monumental, on the northwestern slope of Bald mountain, in granodiorite.

Cougar Mine.—About 3 miles north of Granite, a half mile west of the creek is the Cougar mine, at an elevation of 5,200 to 5,400 feet. It was discovered in the 90's. The development extends over a vertical distance of 300 feet and consists of short crosscuts to the vein and over 2,000 feet of drifting on three levels.

The country rock is a black siliceous semi-slaty argillite. The strike of the lode is northeast and its dip is 60° to 70° S. E. The underground workings, combined with the surface pits, trace the lode for about 2,000 feet. The outcrop on a gently rolling timbered ridge is inconspicuous. The lode is from 2 to 10 feet wide, although in the lower and recent development it appears in one place to be much wider. The walls over a considerable area in the stopes are fairly well defined, although the filling is largely brecciated argillite.

There is very much less quartz than in most of the brecciated zones

COUGAR MINE

(2)

BALD MT. -
ELKHORN
GRANITE -
DISTRICT

in argillite in eastern Oregon. Aside from the quartz and shattered argillite, there is a gouge of light color that is said to contain the highest values which gradually lessen away from it. This would indicate that the ore was deposited by a combination of replacement and quartz filling of the smaller fractures. There are 3 or 4 shoots in the 1,200 feet of development on the strike of the vein, whose combined stoping length is more than half that distance. According to reports there is a large tonnage of ore averaging nearly \$7 a ton and a much smaller quantity in one block which contains nearly twice that value per ton.

A few thousand tons at various times have been stoped and treated in a crude mill upon the property, but there is practically no free gold even at the surface. Cyaniding this ore, which is by no means easy to treat although the sulphides are nearly all pyrite, has been attempted by incompetents or else the management so interfered with competent metallurgists that they gave up in disgust before a process could be successfully established.

Of the gross value in the tonnage of ore treated all but a tithe went down the creek. In the last few years work has been confined to development 100 feet below the mill level for 500 feet along the vein.

INDEPENDENCE MINE

BALD MT -
ELKHORN P
GRANITE D

Independence Mine.—The Independence mine is located about one mile northwest from the Cougar on the opposite side of the same ridge.

The country rock is argillite. The underground development of the vein along its strike is about equal to that of the Cougar, although the development on the dip is only about 200 feet. It has approximately the same strike and a little flatter dip to the southeast. It is developed by an incline and two tunnels.

There are two shoots of ore, the larger one having a stope length somewhat in excess of 300 feet and the smaller a little over 100 feet. The average width of these is slightly less than three feet.

A block of ore from the larger shoot of some 3,000 or 4,000 tons has been milled in the Independence mill, situated about one-half mile farther down on Granite creek. Cyaniding has been attempted, but with indifferent success.

The ore is composed of gouge and brecciated argillite with a small amount of quartz. In the oxidized portion of the vein, which is considerable, the whole is much stained with iron precipitate deposited from circulating waters. Dolomite and quartz were observed in some places and chalcedonic quartz was also seen. Pyrite and arsenopyrite are found both in quartz and in argillite, while the silver minerals are largely confined to the dolomite. The oxidized portion of the ore is said to contain about \$8.50 in gold, while below it is said to contain more than twice that value. The silver, about 2½ ounces in the oxidized portion, is said to be nearly 4 times that quantity below. Silver is quite easily dissolved and carried down-

ward in the oxidizing part of the vein, but the large increase in gold content below can hardly be ascribed, except perhaps in part, to this cause, although there is present in the vein some manganese.

Late in 1914 the Gleason Development company acquired the property and began to make such adjustments and changes in the mill as were considered necessary to make cyaniding a success.

Ventus
6/29/30
JDL

COUGAR PROPERTY

QUARTZBURG
DISTRICT
GOLD-QUARTZ
VEINS

(See Present Need Property)

QUARTZ

PLACER

- 1 Name: DISTRICT County:
- 2 Owner: Address:
- 3 Operator:
- 4 Location:
- 5 Area: claims acres, feet of creek
- 6 History: *production.*
- 7 Equipment: track, cars, mill pipe, giants
- 8 Geology: elevation, topography, general and local geology, structures
Vein, zone, bed, attitude, gangue gulch, flat, bench, character of
minerals, alteration, enrichment bedrock, type of gravels, size,
Metalurgy of ore, treatment. size and fineness of gold, source.
- 7 Climate: timber, snowfall, power, transportation. water rights, ditches, water
allowed, amt. used, length of season.
- 10 Developement: levels, drifts, crosscuts, etc. Acres mined, tardage moved, bullion
~~XXXXXXXXXXXX~~ shipped, depth to bedrock.
- 11 Economics: Costs, drawback, reasons for success or failure, ore reserves, life
of operation. Owners plans for future.
- 12 Reccommendations: Remarks:
- 13 Informant:
- 14 Signature:
- 15 Date:

The Cougar mill will be completed October 1st. Concentrating on a 12 to 1 ratio, a recovery of 96% is expected according to tests made at Cornucopia by Mr. Bailey. Bill Miller, mill foreman, indicates the following set-up: 6 x 20" Sturtevant roll jaw crusher to 200 ton bin. 75 ton C.I.W. 6 x 6' mill (with a duplicate 5 x 4 mill) to raise capacity to 120 tons) to 100 ton bin. 12 x 18" Denver mineral jig, to #250 Fahrenwald unit cell, to 4 x 14' classifier, through 48 mesh screen, to 6 cell (or more) flotation machine. Discharge to 2 #6 Wilfley tables, heavy middlings to Simplex classifier to be used as a dewaterer. Overflow to waste. Middling sands back to mill. 9/24/39

IN THE OFFICE OF THE DIRECTOR
BUREAU OF LAND MANAGEMENT
WASHINGTON 25, D. C.

UNITED STATES OF AMERICA,)	
)	
Contestant,)	Contest No. 05303-A
)	(P.L. 167), involving
vs.)	the Success, Modoc and
)	other claims and the
IRVING RAND and JOHN M. BALLIST,)	St. Paul Mill Site,
)	within Sections 21, 22,
Mining Claimants.)	27 and 28, in T. 8 S.,
)	R. 35 1/2 E.W.M.,
IN THE MATTER OF DETERMINATION of)	Grant County, Oregon.
Surface Rights on Certain Un-)	
patented Lands of the United States.)	

OPENING BRIEF OF MINING CLAIMANTS

As attempted to be applied in this contest, the Act of July 23, 1955 (30 U.S.C.A. §§ 611-615) is clearly unconstitutional.

To demonstrate the unconstitutionality of the Act as attempted to be applied in this contest, let us first consider the rights of the Mining Claimants and then consider what the Act attempts to do to these rights.

The rights of the Mining Claimants arose under and long since became vested under the provisions of the Act of May 10, 1872. A summary of the pertinent provisions follows:

Section 1 (R.S. § 2319; 30 U.S.C.A. § 22): All valuable mineral deposits in lands belonging to the United States shall be free and open to exploration and purchase and the lands in which they are found to occupation and purchase by citizens of the United States.

The general purpose of this section was (and still is) to encourage citizens to assume the hazard of searching for the valuable minerals deposited in the public lands. O'Connell v. Pinnacle Gold Mines Co., 131 F. 106; Affd. 140 F. 854.

Section 2 (R.S. § 2320; 30 U.S.C.A. § 23): Mining claims upon veins or lodes of quartz or other rock in place bearing gold, silver, or other valuable deposits may equal, but not exceed, 1500 feet in length along the vein or lode.

Section 3 (R.S. § 2322; 30 U.S.C.A. § 26): The locators of all mining locations made on any mineral vein, lode, or ledge, situated on the public domain, shall have the exclusive right of possession and enjoyment of all the surface included within the lines of their locations.

Section 6 (R.S. § 2325; 30 U.S.C.A. § 29): The person who has made a discovery and located his claim and has expended \$500 worth of labor or improvements on the claim by himself or his grantors, and who complies with requirements as to posting notices, surveying boundaries and the like, and who pays \$5 per acre, is entitled to a patent.

The rights of the grantors of these Mining Claimants became vested and subject to constitutional protection many years before the enactment of the Act of July 23, 1955, which seeks to deprive them of their right "to occupation and purchase"; of their "exclusive right of possession and enjoyment of all the surface included in the lines of their locations"; and their right to acquire, free from molestation, despoilation, encumbrance, or other interference, the fee to the lands held in trust by the United States for their benefit.

When the grantors of the Mining Claimants entered upon the public domain and assumed the hazard of searching for the

valuable deposits of gold and silver and other minerals, and discovered valuable deposits and completed \$500 worth of labor and improvements, their rights became vested and not subject to divestiture by subsequent act of Congress.

The nature and extent of the rights of the grantors of these Mining Claims, to which the claimants have admittedly succeeded, have been defined by the Supreme Court of the United States on many occasions.

In the case of *Butte & Superior Copper Co. v. Clark-Montana Realty Co.*, 249 U.S. 12, 39 S. Ct. 231, a contest between mining claimants as to extralateral rights, the Supreme Court said with reference to the steps required in the establishment of mining claims:

"The steps in that procedure and their order are well established. The first of them is the discovery of mineral-bearing rock within the claim, and it must precede location. The subsequent steps--marking the boundaries, posting notices, recording--are the declaration of title; the patent is the final evidence of it."

At a later point in the opinion the Court in this case said:

"We may say, however, that priority of right is not determined by dates of entries or patents of the respective claims, but by priority of discovery and location, which may be shown by testimony other than the entries and patents."

Wilbur v. United States, 280 U.S. 306, 50 S. Ct. 103, involved an attempt by the government to declare a mining claim null and void for failure of the mineral claimant to do assessment work. The Supreme Court held the decision of the Secretary of the Interior, so holding, a plain violation of the statutes. The Court said:

"The rule is established by innumerable decisions of this Court, and of state and lower federal courts, that, when the location of a mining claim is perfected under the law, it has the effect of a grant by the United States of the right of present and exclusive possession. The

claim is property in the fullest sense of that term; and may be sold, transferred, mortgaged, and inherited without infringing any right or title of the United States. The right of the owner is taxable by the state; and is 'real property,' subject to the lien of a judgment recovered against the owner in a state or territorial court. *Belk v. Meagher*, 104 U.S. 279, 283, 26 L. Ed. 735; *Manuel v. Wulff*, 152 U.S. 505, 510-511, 14 S. Ct. 651, 38 L. Ed. 532; *Kluder v. Wood*, 208 U.S. 226, 232, 28 S. Ct. 263, 52 L. Ed. 464; *Bradford v. Morrison*, 212 U.S. 389, 29 S. Ct. 349, 53 L. Ed. 564. The owner is not required to purchase the claim or secure patent from the United States; but, so long as he complies with the provisions of the mining laws, his possessory right, for all practical purposes of ownership, is as good as though secured by patent. While he is required to perform labor of the value of \$100 annually, a failure to do so does not ipso facto forfeit the claim, but only renders it subject to loss by relocation. And the law is clear that no relocation can be made if work be resumed after default and before such relocation.

"Prior to the passage of the Leasing Act, annual performance of labor was not necessary to preserve the possessory right, with all the incidents of ownership above stated, as against the United States, but only as against subsequent relocators. So far as the government was concerned, failure to do assessment work for any year was without effect. Whenever \$500 worth of labor in the aggregate had been performed, other requirements aside, the owner became entitled to a patent, even though in some years annual assessment labor had been omitted. *P. Wolenberg et al.*, 29 L. D. 302, 304; *Nielson v. Champagne Mining and Milling Co.*, 29 L. D. 491, 493.

"It being conceded that the Spade No. 3 'was a valid claim existent on February 25, 1920,' the only question is whether, within the terms of the excepting clause of section 37 (30 USCA § 193), the claim was 'thereafter maintained in compliance with the laws under which initiated.' These words are plain and explicit, and we have only to expound them according to their obvious and natural sense.

"It is not doubted that a claim initiated under section 2324, R. S., could be maintained by the performance of annual assessment work of the value of \$100; and we think it is no less clear that, after failure to do assessment work, the owner equally maintains his claim, within the meaning of the Leasing Act, by a resumption of work, unless at least some form of challenge on

behalf of the United States to the valid existence of the claim has intervened; for as this court said in *Belk v. Meagher*, supra, at page 283 of 104 U. S., 26 L. Ed. 735: 'His rights after resumption were precisely what they would have been if no default [that is, no default in the doing of assessment labor] had occurred.' Resumption of work by the owner, unlike a relocation by him, is an act not in derogation, but in affirmance, of the original location; and thereby the claim is 'maintained' no less than it is by performance of the annual assessment labor. Such resumption does not restore a lost estate (see *Knutson v. Fredlund*, 56 Wash. 634, 639, 106 P. 200); it preserves an existing estate."

In *Ickes v. Virginia-Colorado Development Corp.*, 295 U.S. 639, 55 S. Ct. 888, the Government had attempted to invalidate a mining claim located in 1917, the ground for the attempted invalidation being failure to perform annual assessment work. The Supreme Court affirmed the validity of the claim as against this attempt and, in describing the rights acquired by the mining locator, said:

"The character and extent of the right which plaintiff acquired by virtue of its location of the mining claims, in 1917, are well established. Restating the rule declared by many decisions, we said in *Wilbur v. U. S. ex rel. Krushnic*, 280 U. S. 306, 316, 50 S. Ct. 103, 104, 74 L. Ed. 445, that such a location, perfected under the law, 'has the effect of a grant by the United States of the right of present and exclusive possession. The claim is property in the fullest sense of that term.' It is alienable, inheritable, and taxable. See *Forbes v. Gracey*, 94 U. S. 762, 767, 24 L. Ed. 313; *Belk v. Meagher*, 104 U. S. 279, 283, 26 L. Ed. 735; *Manuel v. Wulff*, 152 U. S. 505, 510, 511, 14 S. Ct. 651, 38 L. Ed. 532; *Elder v. Wood*, 205 U. S. 226, 232, 28 S. Ct. 282, 52 L. Ed. 104; *Bradford v. Morrison*, 212 U. S. 389, 394, 29 S. Ct. 349, 53 L. Ed. 564.....'Whenever \$500 worth of labor in the aggregate had been performed, other requirements aside, the owner became entitled to a patent, even though in some years annual assessment labor had been omitted.' *Wilbur v. U. S. ex rel. Krushnic*, supra."

Now what does the Act of July 23, 1955, attempt to do, so far as the vested rights of these Mining Claimants are involved?

We will not concern ourselves or burden the Director with consideration of the several pages of legal chaff with which this poorly drafted Act is cluttered, but will at once go to the gist of the matter.

Section 7 (30 U.S.C.A. § 615) says that nothing in the Act shall limit or restrict any existing rights under any valid mining claim theretofore located, except as such rights may be limited as a result of a proceeding pursuant to section 5, which is a left-handed way of saying that section 5 may limit and restrict existing rights of mining claimants holding under valid mining claims previously located.

Section 5(c) says that if a mining claimant has informed the Secretary of the Interior by a notice that he doesn't waive his rights, then the Secretary shall have a hearing "to determine the validity and effectiveness of any right or title to, or interest in or under such mining claim, which the mining claimant may assert contrary to or in conflict with the Government's pretended right (§ 5(b) "to manage and dispose of the vegetative surface resources thereof and to manage other surface resources thereof", and the right of the Government (§ 5(b) "to use so much of the surface thereof as may be necessary for such purposes or for access to adjacent land."

In short, the Act endeavors to deprive the mining claimant of his vested and accrued rights under the mining law by the hocus-pocus of a hearing before some Examiner. The only authority and function of the Examiner under the statute is to determine whether the exclusive right of possession of the mining claimant conflicts with an asserted right of the Government to occupy the surface and cut and remove trees and shrubs and buildings, and in practical effect evict the mining claimant.

The statute does not provide for a judicial or semi-judicial determination as to the validity of the mining claim itself. It purports to deal only with the validity of asserted rights claimed by the Government in conflict with those of the mining claimant.

Once it is admitted, as it must be under the many decisions of the Supreme Court of the United States, that the grant, originating in the discovery of valuable mineral and becoming vested by the performance of \$500 worth of labor or improvements, carries with it the exclusive right of possession and the right to a patent, then there remains no room at any administrative hearing for establishment of conflicting rights to the same land. To deprive the mining claimants of their vested rights, by constitutional means, the Government would have to resort to its power of eminent domain and would be required to pay just compensation.

If the mining claim itself is not a valid mining claim for the reason that there was never any discovery of valuable mineral within the boundaries of the claim, or for other sufficient reason, then the Government's rights are not even subject to debate, and there is no need to call for any hearing for determination of its rights.

If, on the other hand, there has been a valid discovery and the rights of the mining claimant have vested, no hearing, however extended, and no number of hearings, however many, short of proceedings in eminent domain, can constitutionally take away such vested rights.

The extent, validity and effectiveness of the rights of the owner of a mining claim--assuming a valid discovery, which the Examiner found as a fact in these proceedings--are

defined by the statute and confirmed by innumerable decisions of the courts. There is no constitutional ground upon which they may be re-determined and, in practical effect, eliminated by some administrative action. The constitutional provision that no person shall be deprived of property without due process of law and without just compensation prevents the application in this case of the surface resources and right-of-way provisions of the Act of July 23, 1955.

II.

There is another facet to the constitutional question, which requires a reversal of the decision of the Examiner.

In the ordinary case of conflicting contentions concerning the public lands there is for decision the factual question of whether the mining claimant has ever made a discovery of a vein containing gold, silver, or other mineral, in sufficient quantity to justify a prudent man in further exploration and development. If so, the land is mineral land, not available to agricultural entry, and reserved from sale by the statute (R.S. § 2318; 30 U.S.C.A. § 21), subject only to occupation and purchase by citizens of the United States in the manner provided in the mining laws.

If a mining claimant has never made a discovery of a vein or lode containing gold and silver in sufficient quantity to justify further exploration and development, but is simply occupying the land for a summer homesite (about which so much ado is being made these days by various governmental departments) then the person has not acquired any rights under the mining laws.

But on the other hand if a discovery of a vein or lode containing gold and silver on the public domain has been made

by a person or his "grantors" and in the absence of abandonment, relocation by another or other circumstance, then the owner of the claim has a vested right to remain in possession indefinitely, and at any indefinite time in the future, whenever \$500 worth of work has been performed on the claim, to apply for and obtain a patent.

Now in the present proceeding the Examiner found (on the basis of uncontradicted, completely documented, substantial evidence, such supplied by the Government itself) a valid discovery on both veins, the Cougar and the Independence, within the lines of the claims owned by these Mining Claimants.

We quote from the Examiner's findings and decision:

"The claims were located for gold and silver in approximately 1900."

"The major veins on the claims are the Independence vein across the Gold Reef, Gilt Edge and Moose claims and the Cougar vein across the Success, Cougar and Wild Cat claims."

"Between the date of location and 1942 approximately \$800,000 of gold and silver has been produced from the two veins."

"Mr. Lloyd N. Holmgren, a mining engineer employed by the Forest Service, ...verified the existence of the two veins".

"His [Mr. Holmgren's] most valuable sample of material in place was taken across a width of 4 feet on the Independence vein within the Gilt Edge and assayed \$17.23 per ton in gold and silver".

"At that time [in 1922] both the Independence and Cougar Veins were being worked."

"During the period between 1907 and 1942 the production record for the two mines as compiled by the Bureau of Mines was 22,487 ounces of gold, 27,589 ounces of silver, and 8,013 pounds of copper."

"Between 1929 and 1942, 53,000 tons of ore were removed from the Cougar and Independence mines".

"1850 tons is known to have come from the Independence in 1939 and 1940".

"I find that both the Independence and Cougar veins were successfully operated intermittently over a period of years prior to 1942, that they were closed down because of the war and that both veins still contain a substantial quantity of approximately \$16.10 per ton ore."

"There is no question that the ore in the two veins was a valuable mineral deposit prior to the war."

"It is clear that the ore constituted a valuable deposit for many years prior to 1942."

"The mining claimants could have received a patent for the claims during this period."

"The ore which was once successfully mined is still on the claims".

Now assuming, without conceding, that due to the depressed price of gold, immediately profitable resumption of mining these veins cannot be had, we then are confronted with a serious constitutional problem. The depressed price of gold is due entirely to the legislative and executive acts of the government itself. By one means or another the government has gathered all the gold formerly held in coins and other forms by citizens in a free market into its own tunnels and shafts at Fort Knox and elsewhere. Not content with this, the government has made criminal the possession of gold, either within the United States or abroad. Dealing in gold has been outlawed. The free market has been destroyed. Thus the depressed price of gold to which the Examiner refers is not an economically depressed price.

When the law makers in 1872 referred to valuable deposits of mineral they referred only to economically valuable deposits in a free and open market. Discovery of such a deposit and performance of \$500 worth of labor or improvements on such deposit entitled the discoverer or his successors to a patent. This became a vested right, subject to full protection, as the Supreme Court has stated in the cases cited above.

And now the government is saying in effect:

Your rights are dependent upon your having a deposit of gold of continuing value.

By outlawing your product and preventing its sale in a free and open market, we have substantially destroyed its value.

Therefore, your rights, being dependent upon value, to the destruction of which we have contributed, are no longer assertable.

It is our considered opinion that the government cannot constitutionally be upheld in this position and cannot constitutionally deprive citizens of their vested rights in this fashion.

III.

There are two distinct phases in the business of mining.

The first essential is the development of the mine, that is the exposure by a long and costly process of the ore deposits by means of shafts and tunnels. This work is entirely, or almost entirely, non-remunerative.

Following the exposure within the vein or ledge of the deposits containing the gold and silver or other metals, commonly called ores, there comes the process of removing the ores and marketing them. The ore, if of sufficiently high grade, is transported directly from the mine to the smelter, as was done with the ores of the Sugar and Independence veins, as is shown in part by the 25 smelter sheets in the record as Mining Claimants' exhibit 2. For ores not of sufficient grade to ship directly to smelter, a process of milling is used. This process eliminates the waste material, separating it from the valuable mineral, which is thereby concentrated or reduced in bulk and then in the form of concentrates is transported to the smelter.

As is shown by the various exhibits as regards the Cougar and Independence veins, the non-remunerative work of long cross-cut tunnels, of drifts along the veins at various levels, the sinking of expensive shafts, and the like, has long since been completed. Thus, a very expensive and costly phase of the mining of these claims has been eliminated.

The Examiner expressly found that both veins still contain a substantial quantity of approximately \$16.10 per ton ore, and that the ore which was once successfully mined is still on the claims. The estimate of the Mining Claimants of 36,000 tons of ore of this average value, blocked out by present development, was not challenged by the government.

There was not one word of evidence that this blocked out ore shown above existing tunnel levels cannot be marketed at a profit even at present price levels.

We do not think that the position of the government, that there must be shown to exist at the time of the hearing (rather than at the time of the original discovery) a deposit that can be marketed profitably, is sound. We believe the law to be exactly to the contrary to the position of the government in this regard.

But, solely for the purpose of demonstrating the error of the Examiner in his conclusions, we call to the attention of the Director the uncontroverted fact that the veins today contain many thousand tons of ore of substantial value and containing gold and silver and copper, in place, ready to be marketed, and in the absence of any evidence as to the cost of marketing this already exposed ore, there can be no conclusion reached except that there exists a discovery within the meaning of the mining laws at the present time.

MILL SITE

With regard to the St. Paul Mill Site the Examiner stated:

"In regard to the mill site, I find that the site was used for mining purposes prior to 1942 but is not now being used for such purposes and will not be used until the claims are in operation. Accordingly, the Saint Paul Mill Site is subject to the same restrictions and reservations as the lode claims."

The conclusion, in view of the fact that the mill site was duly located according to law and used for mining purposes for many years, is clearly an erroneous legal assumption of the Examiner. No provision of the law was cited to sustain the conclusion, and there is no provision in the law to the effect that a mill site must be continuously used for mining purposes. The law requires only that it be located and used for mining or milling purposes and that thereupon the owners of the mill site and their successors are entitled, at any time upon application and the payment of the prescribed fees, to a patent, and in the meantime are entitled to remain in the sole and exclusive occupancy and possession thereof. The only condition is that the mill site be used or available for use in connection with a mine. This requirement is fully satisfied by the ownership by these Mining Claimants, even ignoring the other claims involved in this proceeding, of the patented Wild Cat Claim and patented Cougar Claim.

In what the Government has denominated Contestant's answer to Statement of Reasons for Appeal, mailed to the Director under date of July 13, 1962, the Government has stated, "We believe that it naturally, logically, and legally follows that if the lode claims are not sufficient to bring them beyond

the restrictions of P. L. 167, the mill site cannot of itself avoid these restrictions." This statement ignores the existence of the Cougar and Wild Cat patented claims, to which the mill site is an adjunct.

Consequently, as to the mill site, if not as well as to the other claims, the decision of the Examiner must be reversed.

V.

The immediately following portion of this brief might well be designated "The Government's Off Again--On Again--Gone Again--Pinnigan Theory of Discovery."

We find in *Cole v. Ralph*, 252 U.S. 286, 40 S. Ct. 321 (at 325-6) the following:

"A location based upon discovery gives an exclusive right of possession and enjoyment, is property in the fullest sense, is subject to sale and other forms of disposal, and so long as it is kept alive by performance of the required annual assessment work prevents any adverse location of the land. *Owillim v. Donnellan*, 115 U. S. 45, 49, 5 Sup. Ct. 1110, 29 L. Ed. 348; *Swanson v. Sears*, 224 U. S. 180, 32 Sup. Ct. 455, 56 L. Ed. 721.....

"Location is the act or series of acts whereby the boundaries of the claim are marked, etc., but it confers no right in the absence of discovery, both being essential to a valid claim. *Waskey v. Hammer*, 223 U. S. 85, 90, 91, 32 Sup. Ct. 187, 56 L. Ed. 359; *Beals v. Cone*, 27 Colo. 473, 484, 495, 62 Pac. 948, 83 Am. St. Rep. 92; *Round Mountain Mining Co. v. Round Mountain Sphinx Mining Co.*, 36 Nev. 543, 560, 138 Pac. 71; *New England Oil Co. v. Congdon*, 152 Cal. 211, 213, 92 Pac. 180. Nor does assessment work take the place of discovery, for the requirement relating to such work is in the nature of a condition subsequent to a perfected and valid claim and has 'nothing to do with locating or holding a claim before discovery.' *Union Oil Co. v. Smith*, supra, 249 U. S. 350, 39 Sup. Ct. 311, 63 L. Ed. 635. In practice discovery usually precedes location, and the statute treats it as the initial act. But in the absence of an intervening right it is no objection that the usual and statutory order is reversed. In such a case the location becomes effective from the date of discovery". [Emphasis supplied]

We find in the decision of the Examiner that the claims in question were located in approximately 1900 and were worked successfully, and that the ore constituted a valuable deposit for many years, and that both veins still contain substantial quantities of valuable ore containing gold and silver, and:

"It is clear that the ore constituted a valuable deposit for many years" and "the mining claimants could have received a patent for the claims during this period."

We next find in the Examiner's decision the following astounding statement:

"Thus it appears that a discovery which was once valuable can be lost and that once the sufficiency of the discovery is challenged, the mining claimants must establish that the deposit is valuable as a present fact. If the depressed value of the deposit was the result of a temporary condition, probably the prospective value would be sufficient to satisfy the requirement of the law. In this case the depressed value of gold has existed for 20 years and can be changed only by ~~the~~ a contingency which may never occur."

It is then the conclusion of the Examiner that the deposits of the claims "do not constitute a discovery within the purview of the mining laws at this time," and accordingly the claims are subject to the restrictions of section 4 of the Act of July 23, 1955.

There is thus squarely presented by this appeal the question of whether the mining laws should be interpreted in accordance with the several decisions of the Supreme Court of the United States to which reference has been made in this brief, or whether the Examiner is correct in assuming that subsequent changes in market conditions may be used retroactively to expunge a vested right.

The mining law itself clearly provides that once a discovery on the public domain has been made and the requirements as to monumenting the ground have been complied with the

discoverer and his grantees and successors may thereafter and in perpetuity enjoy the exclusive possession and occupancy of the ground within the lines of the claim, to the exclusion of all the world, except another locator, if the annual assessment work is not performed.

The decisions of the Supreme Court of the United States, which after all is our highest authority, clearly and unequivocally confirm and re-announce the same rule of law.

As justification for a contrary conclusion the Examiner has cited no statutory or case authority, and neither has the Government in any of its briefs. The Examiner has rested his conclusion upon an Interior Department decision made in connection with an application for a patent. This decision (which the Examiner mistakenly says follows a long line of previous decisions) is *U. S. v. Leguerrain*, 60 I.D. 371 (1949). This decision involved an application for a mineral patent to land in California said to be placer ground. The title of the applicant was defective, if not non-existent. The applicant "offered practically no evidence as to the mineral content of the claim at the present time," but testified that her father and at times other members of the family worked the claims from 1885 to 1909 and found enough gold to support two families living on the claims. The Solicitor writing the decision said:

"Although the precise issue does not appear to have been decided before, it seems clear that, before a mineral patent can be issued, it must be shown as a present fact, i.e., at the time of the application for patent, that the claim is valuable for minerals."

The facts in this case justified the decision. Placer claims are notoriously short lived, being only surface wash of sand and gravel from which the mineral (almost invariably gold) is quickly washed out. After the gold has been extracted from

the surface mantle, the land, at least in the ordinary case, is obviously no longer valuable for minerals. Thousands of such acres exist today in the Western States.

The Secretary decided in this Logomarcini case that such land from which the surface deposit of gold has previously been removed is no longer subject to location and entry and patent as mineral land.

In any reasonable view this decision is not authority for the present contentions of the Government or the conclusion of the Examiner. By stretching this Logomarcini decision beyond any semblance of rationality, the Government is seeking, as it has done of recent years in other instances, to impose a wholly unauthorized restriction upon the entry, location and patenting of mineral lands by mineral claimants.

The Government is seeking and has sought to postpone the test as to a discovery sufficient to meet the requirements of the mining law from the time when the discovery was made to a subsequent time when put to a challenge by the Government. This in our opinion is a plain perversion of the intent and purpose and express language of the mining laws. It does not have the authority of any court decision of which we are aware. It is contrary to the announcement of the Supreme Court of the United States, as set forth in the opinions referred to and quoted from earlier in this brief.

The Government has sought, and the Examiner has sought to impose in this case a further completely unauthorized test of the sufficiency of the discovery--that is a test of immediate marketability at a profit of the mineral discovery.

Until recently administratively decided otherwise, the test of the sufficiency of discovery has always been as set forth in *Foster v. Seaton*, 271 F. 2d. 836 -- The finding of minerals of such character that a person of ordinary prudence would be justified in further expenditure of labor and means, with a reasonable prospect of success, in developing a mine.

In many places alarm has been expressed at the attempt administratively to impose the present marketability test.

We find for example the Undersecretary of the Interior, Clarence A. Davis, saying on January 26, 1956, before a Subcommittee of the Senate Interior and Insular Affairs Committee:

"Nevertheless, a few years ago, the Department of the Interior attempted to inject into the mining laws a standard of discovery which required profitable operation and a showing that the mineral deposits had the greater comparative value than other uses. This is not the standard set up by law."

The Honorable Howard A. Twitty recently said before the American Mining Congress:

"All of us, no doubt, feel the recent trend of the Interior Department to add the marketability test to the prudent man test as a rule for discovery of minerals of limited occurrence, as well as the addition of this test to the prudent man test in the case of minerals of common occurrence, is administrative legislation wholly unwarranted by a fair interpretation of the mining laws.

In the December, 1961, State of Oregon Department of Geology Bulletin appears the following:

"Most people in mining today grew up under the 'prudent man' test for determining if there was a valid showing of minerals in order to locate and hold a claim. This test, as set forth by the Supreme Court of the United States, states: '...where minerals have been found and the evidence is of such a character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine, the requirements of the statute have been met. . .'. The Bureau has added to this long-standing test another and more stringent one: 'marketability.' . . . This ruling has not been tested by the courts."

If the present marketability test should be applied, we would have, as above stated, the off again--on again--gone again--Finnigan anomaly and the law would be in a state of chaos. Property rights of the utmost importance would be subject to the daily or seasonal vagaries of the market and to the ever-fluctuating states of economy and efficiency of mining, milling, transporting and smelting. Market prices of all metals, including indeed gold and silver in the open market, vary from day to day. Improvements in efficiency and economy of recovery occur constantly. The flotation process, discovered by Finnigan's widow while washing a miner's overalls, made profitable for the first time the operation of thousands of metal mines throughout the world.

The Examiner's conclusion cannot be sustained. A valid discovery has been found as a fact by the Examiner, based on satisfactory and competent evidence. So we have here a situation where the Examiner finds, and the Government concedes, a sufficient discovery, when made, vesting in the claimants the right to exclusive possession and occupancy, and the right upon application to a patent.

But the Examiner concludes that the price of gold is depressed, and therefore, applying a marketability test, although all our rights of mining (which are based only on the sufficiency of the discovery) remain intact, our right of exclusive possession and to a patent under the mining laws is gone. This right to a patent under the mining laws may return, says the Examiner, if gold prices go up, but this may not happen for some time. Meantime we have and enjoy all rights of mining under the sufficient discovery made years ago.

This hodge-podge of inconsistency and illogicality cannot stand. The only possible logical and legal construction of the

mining laws is to test the sufficiency of the discovery when made, not at some later, undisclosed time. If at that time, when discovery is made, a prudent man would explore further with some reasonable hope of success, the test of the mining laws has been met. Nowhere is there justification under the law, either case law or statutory, for any other conclusion.

CONCLUSION

Thousands of tons of mineable ore were found to remain in place in the two veins. The Mining Engineer who presented the Government's side at the hearing was of opinion that the ore values would increase with depth. Further exploration and development was indicated as a prudent course to be pursued by the owners. No satisfactory or sufficient mining, milling, transportation, smelting or other costs were put into the record by the Government. The sufficiency of the discovery, when made, was conceded. The rights of the Mining Claimants, in every respect except as to surface resources, was found and confirmed.

So, for the sole purpose only of depriving these owners of surface rights the sufficiency of the discovery, made years ago, as of the date of the hearing, is denied. No proper interpretation of the mining laws will permit such conclusion.

The rights of the Mining Claimants vested many years before the enactment of the Act of July 23, 1955, and have never been divested, and except for surface resources are admitted by the Government and found by the Examiner to remain in existence today. These rights include the right of exclusive possession, subject to constitutional protection, and may be

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Washington 25, D. C.

In reply refer to:
6.05c
Oregon Contest
No. 05303A

March 29, 1963

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

DECISION

United States of America, :
Contestant : Involving the Success, Modoc, Tomboy,
 : Gold Reef, Gilt Edge, Lillie, Eula,
 : Eastern Star, Kit, Al, Ike, Ruth,
Irving Rand and John M. Balliet, :
Contestees - Appellant : Kuroki, Marion, Helen Quartz Mining
(30 U. S. C. 613) : Claims and the St. Paul Mill Site,
 : within secs. 21, 22, 27, and 28 in
 : T. 2 S., R. 35-1/2 E., W.M., Grant
 : County, Oregon
 :

Decision Reversed

The above-named Contestees have appealed from the Hearing Examiner's decision, dated April 26, 1962, determining that the Success, Modoc, Tomboy, Gold Reef, Gilt Edge, Little, Eula, Eastern Star, Kit, Al, Ike, Ruth, Kuroki, Marion, Helen Quartz Lode Mining Claims and the Saint Paul Mill Site within the Whitman National Forest, Granite Mining District, Grant County, Oregon are subject to the limitations and restrictions of section 4 of the Act of July 23, 1955 (30 U. S. C., 1958 ed., sec. 612), for lack of discovery of valuable mineral deposits within the limits of the claims.^{1/} The appeal has been taken from the decision only in the respect that it relates to the Gilt Edge, Gold Reef, Success, Modoc, and Kuroki mining claims and the Saint Paul Mill Site.

This proceeding was initiated pursuant to section 5 of the Act of July 23, 1955 (30 U. S. C. 1958 ed., 611-615), by the Forest Service, United States Department of Agriculture, to secure a determination of surface rights to lands embraced within the above identified mining claims. The Government alleged that sufficient minerals have not been found within the limits of the claims to constitute a discovery of a valuable mineral deposit and that the mill site is not being used or occupied for mining or milling purposes. A hearing was held in Portland, Oregon on

1/ Prior to the introduction of evidence at the hearing, the Contestees waived the surface rights to all the claims in issue except the Gilt Edge, Gold Reef, Success, Modoc, Kuroki, and the Saint Paul Mill Site.

December 13, 1961, both parties being represented by counsel, offered evidence in the form of oral testimony, documents, and exhibits. A thorough review of the evidence presented at the hearing is contained in the Examiner's decision. Accordingly, a detailed summary of the testimony will not be reiterated in this decision, but only those portions deemed necessary for a determination of the facts and the law involved, and raised by the issues on appeal.

On the basis of the evidence adduced at the hearing, the Examiner found that the mining claims were located for gold and silver in approximately 1900, that the Independence vein which crosses the Gold Reef, Gilt Edge, and Modoc claims, and the Cougar vein which crosses the Success and two patented claims, were successfully operated intermittently over a period of years prior to 1942, and that both veins still contain a substantial quantity of approximately \$16.10 per ton ore. Since the World War II, the relative value of gold compared to the value of labor and equipment has depreciated to the point that neither vein can be successfully operated at this time. He also found that the Saint Paul Mill Site is not being used at the present time and has not been used for mining purposes for many years. Accordingly, he concluded that the mineral deposits on the claims are not valuable as a present fact and that they do not constitute a discovery within the purview of the mining laws. As a result of these findings and conclusions, the Examiner determined that the claims in issue, including the mill site, are subject to the reservations and restrictions contained in section 4 of the Act of July 23, 1955, supra.

On appeal both parties have filed extensive briefs. The Contestees, among other things, allege in their appeal generally that the Examiner committed error in his decision in that the uncontroverted proof showed a valid discovery under the mining laws, a past successful and profitable operation, and the present existence of many thousands of tons of valuable deposits containing gold, silver, copper, and other minerals. They assert that the Examiner's decision in its conclusions was patently and clearly erroneous as it applied to the Modoc, Success, Gilt Edge, and Gold Reef Mining Claims and the Saint Paul Mill Site,^{2/} and that the owners of these mining claims are entitled to the exclusive possession thereof not subject to any of the restrictions of the Act of July 23, 1955. They further contend that the Examiner's decision if permitted to stand would be a violation of the provisions of the Federal Constitution which prohibits the taking of property without due process of law.

The Contestant in its briefs in answer to the allegations of the Contestees generally and specifically denies the various arguments presented

^{2/} Contestees have apparently abandoned their appeal in so far as it relates to the Kuroki Claim because no reference is made to it in their briefs.

and the applicability of the principles urged to the situation as it exists in the instant case.

After a careful consideration of the entire record including the positions urged by the parties, it is concluded that the main issue raised by this appeal is whether or not the Examiner properly determined that a change in economic conditions to the extent shown by the evidence in this case, would render an acknowledged discovery of a valuable mineral deposit invalid or ineffective as a location under the mining laws to invoke the provisions of section 4 of the Act of July 23, 1955. We think not.

In the first instance, section 5(c) of the Act of July 23, 1955, supra., provides that the purpose of the hearing shall be "to determine the validity and effectiveness of any right or title to, or interest in or under such mining claim, which the mining claimant may assert contrary to or in conflict with the limitations and restrictions specified in section 4 of the Act as to hereafter located unpatented mining claims * * *." In other words, the hearing shall determine whether the claimant has any right, title, or interest in the vegetative surface resources of the claim or the management of its other resources.

Prior to patent a mineral locator can acquire a right, title, or interest in the surface resources of a claim only if he has made a valid discovery within the limits of the claim. United States v. Clarence E. Payne, 68 I. D. 250, 253; (1961).

It has also been held that:

"* * * even though a location has been made a mining claimant acquires no right as against the United States until he makes a discovery. Until that time, he is a mere licensee or tenant at will. Upon discovery, and only upon discovery, he acquires as against the United States and all the world an exclusive right of possession to the claim which is property in the fullest sense of the word." United States v. Carlile, 67 I. D. 417, 421; (1960); Cole v. Ralph, 252 U. S. 286, 295 (1920); also see Union Oil Company v. Smith, 249 U. S. 337, 347 (1919).

Even after discovery, but prior to patent, a locator has a right to exclusive possession of land within the claim only for the purpose of mining, and cannot dispose of surface resources not necessary for mining. United States v. Etcheverry, 230 Fed. 2d. 193 (10th Cir., 1956).

In the Jefferson - Montana Copper Mines Company case, 41 L. D. 320 (1912) at page 323, it is stated that the elements necessary to constitute a valid discovery upon a lode mining claim are as follows:

"1. There must be a vein or a lode of quartz or other rock in place;

"2. The quartz or other rock in place must carry gold or some other valuable mineral deposit;

"3. The two preceding elements, when taken together, must be such as to warrant a prudent man in the expenditure of his time and money in the effort to develop a valuable mine."

"It is clear that many factors may enter into the third element; the size of the vein, as far as disclosed, the quality and quantity of mineral it carries, its proximity to working mines and location in an established mining district, the geological conditions, the fact that similar veins in the particular locality have been explored with success, and other like facts, would all be considered by a prudent man in determining whether the vein or lode he has discovered warrants a further expenditure or not."

The evidence presented in the instant case has established that the subject claims are located in an established mining district (Granite Mining District); a sizeable vein is in place (samples taken by a mining engineer, employed by the Forest Service, from a width of 4 feet on the Independence vein within the Gilt Edge Claim); samples showed good quality ore (assays ran from \$17.23 to \$23.50 per ton) and in large quantities (a 1929 report shows 36,000 tons had been blocked out, that 152,100 additional tons of ore were probable and that 245,907 additional tons were prospective; 53,000 tons were removed from 1929 to 1942 of which 1850 tons were from the Independence vein during 1939 and 1940). The subject mining claims are in close proximity to a currently working and profitable mine in a similar geological structure (the Buffalo, located one mile to the northeast) and finally, other like veins including the veins that cross the subject claims have been worked successfully and profitably in the past.

The question of whether the claims could be economically worked at the present time must be considered since it was the basis for the Hearing Examiner's conclusions.

The Hearing Examiner found that there was a discovery of a valuable deposit of gold, silver, and copper within the confines of the subject claims and that there still remains a substantial quantity of ore in place, but concluded the values in the ore are not sufficient to justify extraction at this time, therefore, such deposits would not constitute a valid discovery within the purview of the mining laws.

In the instant case there was testimony offered by the Contestees that the claims could be operated at a profit, but they desired to wait for better economic conditions before they resumed operation. This stated desire to wait for better economic conditions is based on the assumption that Congress may raise the price of gold or even do away with the price control completely. The Contestant, while acknowledging that a profitable operation could be conducted on these claims for a short time and on a small scale, contends that this is insufficient to constitute a valid discovery within the purview of the mining laws.

Contrary to Contestant's argument and the Examiner's conclusions, a valuable mine need not be a profitable mine, but the evidence of value which sustains a discovery must be such that with actual mining operations under proper management, a profitable venture may reasonably be expected to result. United States v. Santiam Copper Mines, Inc., A-28272 (June 27, 1960); United States v. Fullingim and Tinkle, A-28850 (September 18, 1962). Thus, as stated above, a valid discovery is made where there is discovered a mineral bearing vein possessing in and of itself a valuable deposit of minerals which would justify a prudent man in the expenditure of time and money with the prospect of developing a paying mine. The Department has gone so far as to hold that it is not necessary, in order to constitute a valid discovery under the general mining laws to support an application for patent, that the mineral in its present situation can be immediately disposed of at a profit. Naver v. Eastman, 34 L.D. 123 (1905).

Accordingly, it would be a far stretch of the imagination to require a greater quantum of evidence in a proceeding such as this to limit the surface rights under section 4 of the Act of July 23, 1955, than is required to determine the validity of the claims under a contest proceeding. We do not think that this was the intent of Congress, and therefore find that the Hearing Examiner was in error in so concluding.

In accordance with the findings contained herein, the Hearing Examiner's decision is reversed insofar as it pertains to the Gilt Edge, Gold Reef, Success, and the Modoc Quartz Mining Claims, and also as to the Saint Paul Mill Site. As to the Kuroki Claim, no issue is presented on appeal, and the Examiner's decision will stand as to this claim, and as to the others in which the surface rights were waived.

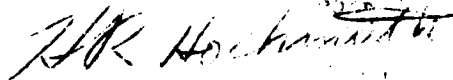
The Forest Service, United States Department of Agriculture and the Contestees are allowed the right of appeal to the Secretary of the Interior in accordance with the regulations in 43 CFR, 1961 Supp., Part 221, as amended. See enclosed Form 4-1365. If an appeal is taken, it must be filed with the Director, Bureau of Land Management, Washington 25, D. C. In the event that an appeal is taken by the Forest Service, no filing fee is required for the reason that the Contestant is an agency of the Federal Government. If an appeal is taken by the Contestees with respect to the Kuroki Mining Claim, the filing fee will

be \$5. In taking an appeal there must be strict compliance with the regulations. If an appeal is filed, the Contestees will have the burden of proving, by presenting positive and substantial evidence, wherein the decision appealed from is in error.

If an appeal is taken by the Forest Service, the adverse party to be served is:

Messrs. George W. Mead and Irving Rand
Attorneys for Appellant-Contestees
1211 Public Service Building
Portland 4, Oregon

If an appeal is taken by the Contestees, the adverse party to be served is the Regional Attorney, Office of the General Counsel, U. S. Department of Agriculture, 406 Oregon Pioneer Building, 320 S. W. Stark Street, Portland 4, Oregon.



Associate Director

Enclosure

DISTRIBUTION

Regional Attorney, Office of the General Counsel, U.S.D.A. (Certified Mail)

Mr. John M. Balliet (Regular Mail)

Office of the Hearing Examiners (Regular Mail)

Messrs. George W. Mead and Irving Rand, Attorneys for Contestees
(Certified Mail)

Hearing Examiner Graydon E. Holt

Mr. John Sieker, Forest Service, U.S.D.A. (Regular Mail)

Forestry and Land Division, Office of the General Counsel, U.S.D.A.
(Regular Mail)

Division of Minerals

Appeals Reading List No. 1

JJS

MINING CLAIMS * 4 Determination of Validity

*** 5 Discovery**

At a hearing under section 5 of the Act of July 23, 1955 (30 U.S.C. 613), the evidence adduced, which was undisputed, disclosed that there remained substantial deposits of gold, silver and copper in place within the limits of certain mining claims, but the mining claimants considered that the extraction of the minerals was not justified under existing economic conditions. The Hearing Examiner concluded in these circumstances that a discovery of a valuable mineral deposit had not been made within the meaning of the mining laws, and determined the claims to be subject to the limitations and restrictions of section 4 of the Act of July 23, 1955.

A valid discovery is considered to have been made where there is discovered a mineral bearing vein or lode within the confines of the claim and possessing in and of itself a valuable deposit of minerals which would justify a prudent man in the expenditure of time and money in the prospect of developing a paying mine. The requirements of the mining laws have been met if this condition exists, and is proven by positive and substantive evidence, even though the claimant does not immediately proceed to mine. A Hearing Examiner's decision holding otherwise is properly reversed.

UNITED STATES V. IRVING RAND AND JOHN M. BALLIET, Oregon Contest No. ~~0530~~1A

(March 29, 1963)

State Department of Geology and Mineral Industries

1069 State Office Building
Portland 1, Oregon

COUGAR GOLD MINING AND MILLING CO. (gold)
(Washington corporation)

Grant County
Granite District

Local name: Cougar mine.

Office: 113 Stevens Street, Spokane, Washington. David R. Adams, President, 1624 Mallon Avenue, Spokane; N. Johnson, Secretary-Treasurer, 113 Stevens Street, Spokane; J. W. Larkin, Managing Agent, 2419 Boone Avenue, Spokane. Capital stock, \$2,000,000; par value \$1.00; all subscribed, issued and paid up. (1916 report).

About 3 miles north of Granite, a half mile west of the creek, is the Cougar mine, at an elevation of 5200 to 5400 feet. It was discovered in the '90s. The development extends over a vertical distance of 300 feet and consists of short crosscuts to the vein and over 2000 feet of drifting on three levels.

The country rock is a black siliceous and semi-slaty argillite. The strike of the lode is northeast and its dip is 60 to 70° S.E. The underground workings, combined with the surface pits, trace the lode for about 2000 feet. The outcrop on a gently rolling timbered ridge is inconspicuous. The lode is from 2 to 10 feet wide, although in the lower and recent development it appears in one place to be much wider. The walls over a considerable area in the stopes are fairly well defined, although the filling is largely brecciated argillite.

There is very much less quartz than in most of the brecciated zones in argillite in eastern Oregon. Aside from the quartz and shattered argillite, there is a gouge of light color that is said to contain the highest values, which gradually lessen away from it. This would indicate that the ore was deposited by a combination of replacement and quartz filling of the smaller fractures. There are 3 or 4 shoots in the 1200 feet of development on the strike of the vein, whose combined stoping length is more than half that distance. According to

reports there is a large tonnage of ore averaging nearly \$7 a ton, and a much smaller quantity in one block, which contains nearly twice that value per ton.

A few thousand tons at various times have been stoped and treated in a crude mill upon the property, but there is practically no free gold even at the surface. Cyaniding this ore, which is by no means easy to treat, although the sulphides are nearly all pyrite, has been attempted by incompetents or else the management so interfered with competent metallurgists that they gave up in disgust before a process could be successfully established.

Of the gross value in the tonnage of ore treated, all but a tithe went down the creek. In the last few years work has been confined to development 100 feet below the mill level for 500 feet along the vein.

About April, 1916, this mine was taken over under lease and bond by the United Gold Mining Company, of Spokane, which is described in another place.

Underground this vein strikes N.75° E. and dips 32° to the south. The foot-wall streak of the vein is about 6 inches wide and composed of quartz and pyrite with minor amounts of arsenopyrite, sphalerite and galena. The center section of the vein is broken iron-stained quartz. There is an 18-inch streak of gouge between the vein and hanging wall.

Informant: J. A. Gyllenberg, H.K.L. 10/28/40.

COUGAR-INDEPENDENCE GROUP (Gold) Granite District Granite Area

Owners: Independence Mining Co., Appleton, Wisconsin.

Operators: Cougar-Independence Lessees. G.P.Lilley, general manager; G.T.Vandel, general superintendent; J.B.Isgrig, office manager; Ben O'Fray, mine superintendent; Bruce Stoddard, mill superintendent.

Location: Three miles north of Granite in SW $\frac{1}{4}$ sec.29, T.8 S., R.35 $\frac{1}{2}$ E. The Cougar is located on the east fork of Ten Cent Creek, the Independence over the ridge on Granite Creek to the east. It is about 4 miles north of Granite.

Area: Seven patented, fifteen unpatented, and two fractional unpatented lode claims.

Development: At the Cougar Mine development consists of 725 feet of drift and crosscut on no.1 level; 1700 feet on no.2 level; 1420 feet on no.3; 450 feet on no.4; a two-compartment shaft sunk 270 feet below no.3 level or 440 feet below the outcrop, and a shaft station cut on no.5 level. It is estimated that there are 2000 feet of raise.

At the Independence Mine, which is idle at present, the development consists of an upper tunnel 250 feet long and a lower level consisting of a 1020 foot tunnel and a 1200 foot crosscut to the vein .

Miscellaneous: Timber for the mine is hauled about six miles. Winter weather is fairly severe with a snowfall of 30 to 60 inches. Transportation is, therefore, difficult and expensive during the winter season. Seventy men are employed at the mine.

Geology: Cougar Mine: In the vicinity of the Cougar Mine the country rock is grey to black argillite, in general thin bedded. A considerable amount of carbonaceous material is noted, particularly near the hanging wall of the vein in the vicinity of the major orebody. Many dikes traverse the argillite, having a strike from north to northwest and dipping SW from 65° to 85°. The greater percentage of these are light-colored, where exposed near the vein zone, but several have been noted that have a preponderance of dark-colored minerals and a more granular structure. In the absence of definite data for classification, they are locally designated as acidic and basic. Hewett classifies the dikes of the district as aplite (light) and quartz diorite to quartz monzonite (dark). They are pre-mineral with respect to the Cougar vein, having been displaced a considerable distance by the vein fault with the resulting drag forming a part of the vein-filling.

The strike of the vein ranges between N.43° E. and No.50° E. with a dip to the SE from 70° to 83°. Strike is remarkably uniform over a given distance within the ore zone but the dip varies considerably in short distances between

the limits given above. Width is from a few inches to 2 feet outside the productive areas to from 3 feet to 9 feet within the orebodies that have been mined to date.

Mineralization occurs along a fracture that has approximately 340 feet horizontal displacement with considerably less vertical movement as determined from correlation of footwall and hanging wall dikes. For all practical purposes the dikes may be considered as striking at right angle to the vein fracture and are displaced by the vein fault. In the locality of numerous footwall and hanging wall dikes the vein contains a considerable amount of mineralized, altered dike material and is considered to be present as drag into the vein fissure during movement along the vein walls. The vein fissure is considered to be a normal fault with movement along a northeast direction and as a consequence dike material fills the vein from the hanging wall of a footwall dike to the footwall of a hanging wall dike. In other sections of the mine where no dikes on either footwall or hanging wall are in evidence with sufficient width to produce the amount of dike filling that now exists, it is concluded that a dike was intruded into the vein fracture before the vein minerals. Hewett states that "In several places it seems clear that some dikes were intruded before the vein-bearing fractures were formed; afterward other dikes were intruded on the fractures but before the quartz, gold and associated minerals were deposited."

The Cougar Vein is of the "composite type" made up of several strands. The width seems to be influenced to a great extent by the enclosing rock as shown by an appreciable increase in vein width at places where the vein fracture passes from argillite to a dike zone. The central portion of the vein often is a breccia composed of angular slate fragments cemented by quartz and dolomite with many open vugs lined with needle-like quartz crystals. The hanging wall section of the vein shows considerable black gouge and carbonaceous material while in many cases the footwall shows only a very narrow band of broken, gouge material. Gold values are largely confined to the area between foot and hanging walls although gold is shown from assay of material at a considerable distance from the vein, in minor amounts.

A limited amount of microscopic work on thin sections and briquettes has been done by John Grove ^{1/}. This work has not indicated the presence of free gold as would be expected, since none can be obtained from panning of finely ground concentrates. However, higher magnification may show the existence of free gold. The secondary or later quartz shows comb structure and has a very vuggy appearance; the original quartz is very fine grained and probably is a colloidal deposit. Grove further states that "the paragenesis of the minerals is as follows: original quartz, pyrite, later quartz, and arsenopyrite and chalcopyrite". In this work he did not note the evidence of any carbonates, but it is definitely known that in many portions of the vein the filling consists largely of dolomite which has been later broken and recemented with quartz and dolomite. Qualitative chemical analysis shows that siderite exists in certain sections of the vein where it is seen to fill many small veinlets, and appears to be of a crystalline nature with the crystals projecting inward from each wall of the small fractures. In some cases, as shown by chemical analyses, the mineral should more correctly be classed as ankerite.

^{1/} John Grove, Senior Thesis Work, University of Washington.

Cougar-Independence

Gold

NAME OLD NAMES PRINCIPAL ORE MINOR MINERALS

646

T8S R35 1/2 E SW 1/4 Sec. 22

PUBLISHED REFERENCES

Oregon Metal Mines Handbook 14B:47
Pardee 14:187 + Hewitt 14:104
Parks + Swartley 16:81-129
Hewitt 31:7+23-32-35-39

Grant COUNTY

Granite AREA

about 5000 ELEVATION

MISCELLANEOUS RECORDS

ROAD OR HIGHWAY

about 19 mi. Sumpter DISTANCE TO SHIPPING POINT

PRESENT LEGAL OWNER (S) Independence Mining Co.

Address Appleton, Wisconsin

OPERATOR

Name of claims Area Pat. Unpat.

Name of claims Area Pat. Unpat.

2 claims x

15 claims x

2 fractions x

EQUIPMENT ON PROPERTY

REPORTS

Memorandum on Oregon-Independence Bill - HF Anderson Jan 22, 42

✓

SHIPMENT AND ASSAY RECORDS

Included in Memorandum listed above.

MAPS

COUGAR-INDEPENDENCE



New mill of Cougar-Independence Lessees at Granite, Ore. Portal of new tunnel being driven to cut veins of both mines at lower level is behind first trees to the left of the ore bin.

ARGELLITE ore of such shaley character, and with the mineralization so finely divided that six modern flotation cells will handle only 50 tons per day, even though they are preceded by a jig and a unit cell, started through the new mill of Cougar-Independence Lessees near Granite, Ore., late in October.

The flotation process has proven very successful in recovering values, but those same values simply will not be hurried into surrender. The mill was designed to run from 75 to 100 tons of ore per day, and will be brought up to this figure with the installation of another bank of Denver Equipment Co. Sub-A, Fahrwald type cells, now under order. This will duplicate the original installation.

The Cougar and Independence mines were discovered and first developed in the '90s, but early attempts to handle the ore, which is almost identical in the two mines, were not very successful. Cyanidation gave only about 50 per cent recovery. In the first weeks of the new mill's operation, recovery ran consistently above 90 per cent, averaging close to 93, and with prospects of even better showing as the mill operation smoothed out.

Prescott Lilley of Baker, Ore., heads Cougar-Independence Lessees, operating the mine. Beverly T. Is-

rig of Granite is manager. P. A. Rockne is general superintendent. He is a miner of long experience, going to the Granite mine from Cornucopia, where he was mine superintendent. Incidentally, Leverett Davis, vice-president and general manager of Cornucopia Gold Mines, says of him: "Pete Rockne is a timbering genius. The best I ever saw or heard of." But more about his timbering later.

Working of the Cougar and Independence mines under the present operators started last spring, ore being shipped while the mill was constructed. It is said that around \$100,000 in ore was shipped to the Tacoma smelter during this period, returns covering operating costs and construction of the mill as well. Mill heads run about $\frac{1}{2}$ oz. gold and 1 oz. silver.

With the initiation of milling, ore from the Cougar mine was being concentrated, while it was still necessary to ship the Independence ore, due to the restricted capacity of the original flotation department.

The two mines are on different veins, but yield almost identical ore. They are both opened by tunnels, with raises on the veins. There are three levels in the Cougar and two in the Independence, with about 5,000 ft. of development all told. The veins average about 3 ft. in width.

New Mill Finds Argellite Ore Surrenders Very Slowly But Gives Good Recovery With Flotation

The vein material is so soft that powder holes are bored with augers without difficulty, a very little hand drilling occasionally being necessary. Despite the soft and friable character of the ore, the walls of the vein are sound and stand well. Dip in the Cougar is 60 or 70 degrees to the southeast from a northeast strike, while the dip in the Independence is a little flatter.

Blasting is done with 30 per cent DuPont powder, of a type rarely used in western mining, and dictated by the peculiar character of the ore handled.

Plans for future development of the mines call for driving a tunnel from just above the mill to cut the veins in both claims. The tunnel, which is now in 250 ft. from the portal, will reach the Cougar vein at 1,400 ft. and the Independence at 2,400 ft. It will cut the Cougar structure 150 ft. below the present tunnel, and will be 300 ft. lower than the Independence workings.

With the mill now running and an adequate supply of ore coming from the two mines, it is planned



P. A. ROCKNE
General superintendent, operations of Cougar-Independence Lessees, Granite, Ore.

to complete driving of the new tunnel during the winter. The portal is an example of the kind of timbering Mr. Davis was speaking about in respect to Mr. Rockne. The timbering is beautifully cut and fitted, quite the equal of any railroad tunnel in appearance as well as in character.

A compressor house will stand near the portal of the tunnel, equipped with a Chicago Pneumatic compressor. All mill power is electric.

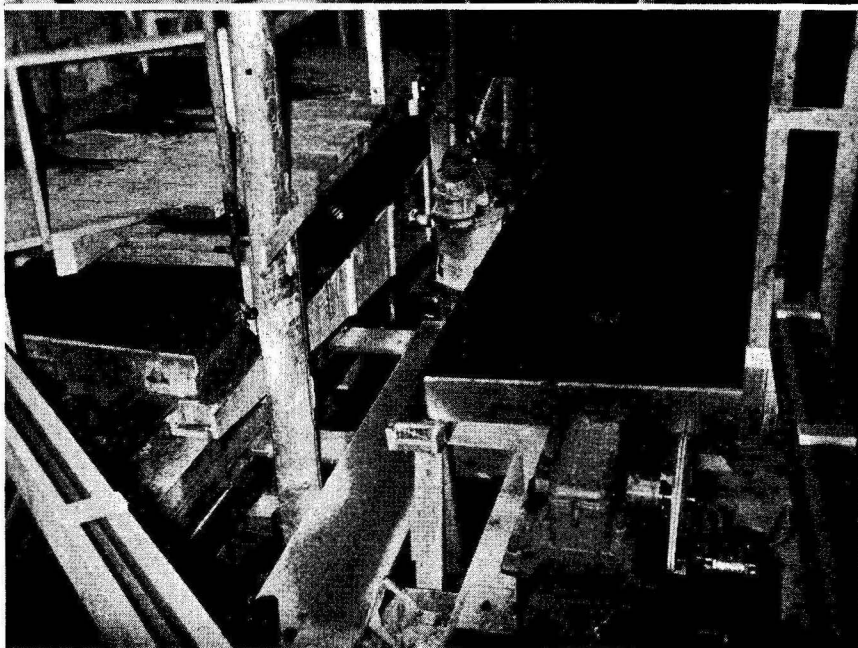
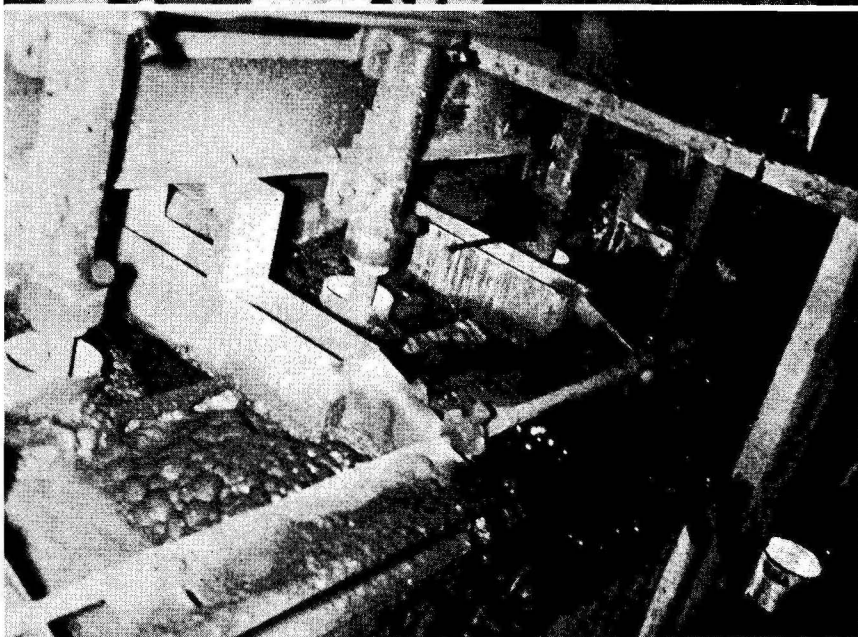
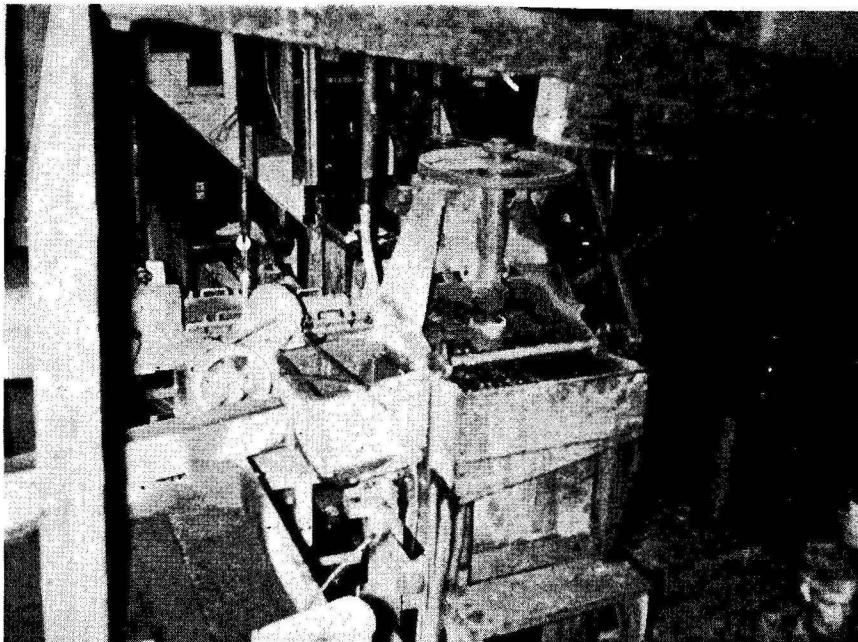
The Cougar-Independence mill is the sixth Mr. Rockne has built or rebuilt, his record includes mills at Gibbonsville, Idaho; Susanville, Ore.; Granite, Mont.; Kendall, Mont.; rebuilding the Cornucopia mill; and now the plant at Granite, Ore.

Mill superintendent is William Miller. T. S. Bailey, mill superintendent of Cornucopia Gold Mines, acts in an advisory capacity in metallurgical matters.

Obviously, Cougar-Independence ore presents few grinding problems. Ore at present is hauled by trucks to the 200-ton bin, from which it passes through a primary jaw crusher powered with a General Electric motor which also drives the belt conveyor carrying crushed ore to the mill feed bin.

Gravity feeds the 5 by 6 Hardinge cylindrical ball mill, whose overflow passes direct to a Denver Equipment Co. mineral jig. Hutch concentrate goes direct to the concentrate shipping bins, but this is not great in volume, due to the finely divided character of the mineralization.

Jig overflow goes to a Denver Sub-A, Fahrenwald type unit flotation cell, whose float is pumped direct to the concentrate filter. Unit cell overflow enters a Dorr duplex classifier, from which fines pass to a 6-cell Denver Equipment Co. Sub-A, Fahrenwald type flotation



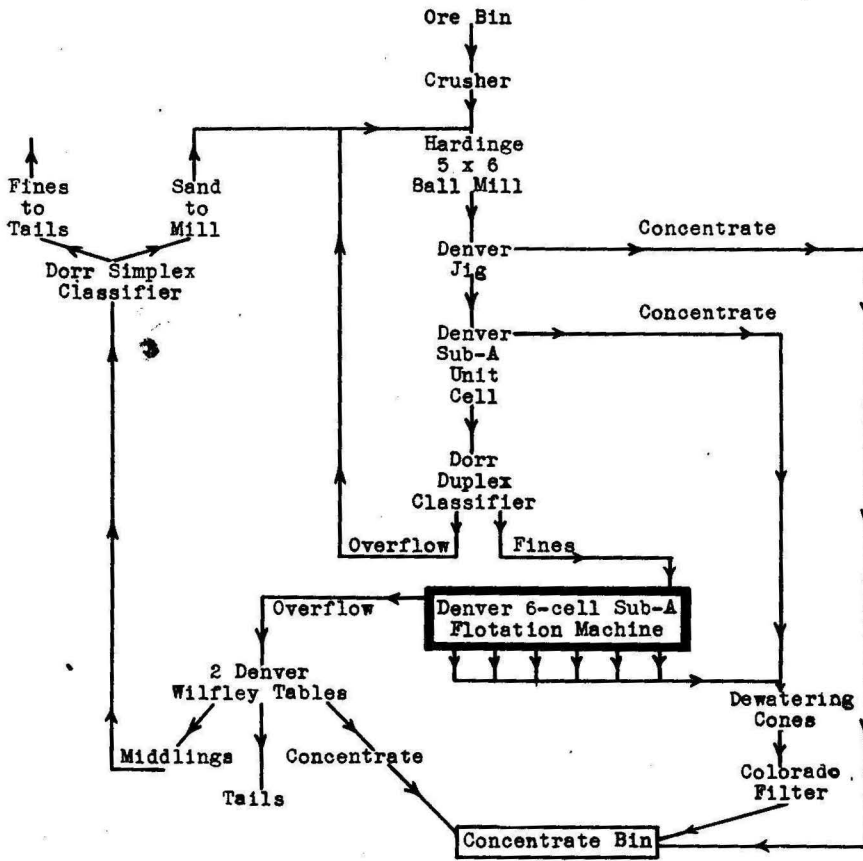
Factors in the Cougar-Independence gold recovery system.

Upper—The Denver jig, first factor in the system, may be seen behind and below the motor just to the left of the Denver unit flotation cell.

Middle—Part of the battery of six Denver Sub-A flotation cells. They have given very good recovery of values, but the peculiar character of the mineralization restricts the tonnage they will handle.

Below—Denver Equipment Co. tables, final factor in the recovery flow sheet. Their middlings are returned to a classifier.

Cougar-Independence Flow Sheet



machine. Sand from the classifier returns to the ball mill feed.

Concentrate from the flotation battery is delivered by a Denver Equipment Co. vertical pump to three dewatering cones. Drained material passes to a Colorado Iron Works filter of Portland type, vacuum from a Colorado Iron Works pump. Filtered concentrate bladed from the drum falls on a slow-moving conveyor belt for delivery to the shipping bins.

Overflow from the flotation machine is divided between two Denver Equipment Co. Wilfley type tables, driven by Westinghouse motors. Table concentrate is taken direct to the concentrate bin. Middlings are picked up by a Denver vertical pump and the balance goes to tails.

Table middlings are elevated to a Dorr simplex classifier, from which fines are run to tails and sand is introduced into the ball mill.

General Electric controls are used almost exclusively throughout the electrical system.

Flotation reagents used in the mill include: soda ash, minarec, pine oil, fuel oil, xanthate 6, and thio-carbonilide (Monsanto). The latter has proven a highly important element in Cougar-Independence recovery, according to Mr. Isrig.

Granby Copper Smelter Plans Wait on Oriental Contract

Granby Consolidated Mining, Smelting & Power Company may establish a smelter at its property near Allenby, B. C., if tests now being made prove favorable, according to A. S. Baillie, vice-president and general manager.

Such a plant would be the only one of its kind in Western Canada, since the smelter formerly operated by Granby at Anyox, and later acquired by Consolidated Mining & Smelting Company, has been dismantled. A quarter century ago a copper smelter known as Tye Copper Smelting Co. was operated at Ladysmith on the east coast of Vancouver Island.

Granby's smelting policy will depend on whether the present contract with Japanese interests for the company's entire output is continued following expiration next July. The company now ships concentrates to Japan at a satisfactory price under special permits issued by the Canadian government. Under ordinary

circumstances, Granby might be called upon to ship its entire production over domestic requirements to Great Britain, as has been done in the case of some other copper producers. But the fact that Granby does not produce electrolytic copper gives it exemption, along with Britannia Mining & Smelting Co., Howe Sound Company's B. C. subsidiary.

Granby profits from the fact that Japan is paying for its concentrates with U. S. funds. Present price is 12c a pound or more and the exchange is additional. Operating profit for the first nine months of 1939 was \$622,535 after deduction of interest and taxes. After allowing for depreciation, depletion, the net income was \$411,002. The second dividend since resumption of operations at Allenby two years ago has been declared, amounting to \$112,565 or 25c a share. Production has been steadily increasing.

If the deal with Japan falls

through, Granby will go ahead with the copper smelter project, opening up many possibilities. Establishment of a copper smelter near the British Columbia coast has long been urged, and it is probable that the Granby plant would serve as a custom plant for other shippers. Under present conditions copper ore produced in the B. C. coastal area, such as at Britannia, is shipped to Tacoma for smelting. Most of the undeveloped copper properties in the province are on the coast, such as Coast Copper and Sunloch, both owned by Consolidated, on Vancouver Island. Whether it would be profitable to mine copper at these properties and ship it to the Granby smelter or to Tacoma is a question yet to be settled.

According to President S. G. Blaylock of Consolidated there is no immediate prospect of opening Coast Copper, Sunloch and other copper properties, although substantial rise in price might bring about such a development.

MEMORANDUM

To: Mr. Rosenberg
From: H. F. Anderson

January 22, 1942.

Subject: Cougar-Independence Mine - Granite, Oregon.

The Cougar-Independence mine has recently been closed down. I understand that shortages of both skilled men and essential materials, due to war conditions, were the principal factors that caused the management to suspend operations. Mr. Brandenthaler suggested that I visit the mine while it was accessible and key staff men were still on the property. Mr. Andrew Murray, of Porter Brothers Dredging Company, very kindly made arrangements with Mr. Van Kirk the present operator, for me to visit the mine on January 16, 1942. Mr. Thomas Lydon, mine superintendent, and Mr. Van Kirk accompanied me on my inspection of the mine. All critical parts were visited. Office maps and records were examined to the extent that time permitted. I am setting forth herein the essential facts ascertained from my visit together with my opinion of the prospect mine value of the mine. They may be of some interest to clients of our concern at some future date.

Present Ownership Status:

The property is owned by the Independence Mining Company of Appleton, Wisconsin. Prior to September 1, 1941 the mine was operated by a group of lessees headed by G. P. Lilley of Baker, Oregon. They held the property on a lease and option to purchase arrangement whereby they agreed to pay a purchase price of \$400,000 on a 10% royalty basis. On or about September 1, 1941 these lessees entered into a deal with Mr. Van Kirk and associates of Pittsburgh, Pennsylvania whereby Mr. Van Kirk took over their lease arrangement with the owners, and paid them \$23,500 for equipment and \$12,000 for supplies. In addition, \$49,000 is to be paid to the former lessees on a 5% royalty basis as payment for other equipment. Mr. Van Kirk is being drafted into the army shortly, and wished to get out of the mining business. He figures that he has approximately \$57,000 whereby someone will take over the mine, reimburse him for his cash investment, and assume all royalty obligations to the prior lessees and owners. It is understood that about \$370,000 of the original \$400,000 purchase price remains to be paid to the owners. The property is made up at present by 7 patented claims and 18 un-patented claims.

Geology:

Two principal veins have been developed on the property. These are the Cougar and Independence veins. The workings on the Cougar vein were the only ones inspected. The Independence vein has not been actively worked in the recent past. The Cougar vein occurs in a grey to black argillite. The black argillite appears to contain considerable carbonaceous material. Many pre-mineral dikes were noted in the walls. They have been intensely altered and bleached by hydrothermal solutions, and were probably akin to basalt in the fresh state.

The vein filling is peculiar in that very little quartz is present. It consists principally of bands of crushed and altered argillite interbanded with seams of black, clayey gouge. According to Mr. Lydon, it is practically impossible

to distinguish between ore and waste in the band specimen. The vein width varies between a few inches in the pinch zones to a maximum of ten feet in the better ore shoots. It is said that the vein averaged between 3 and 4 feet wide in the areas mined. The ore shoots appear to be oriented on the plane of the vein with their long axis almost vertical. A noteworthy feature of the ore shoots is the rather constant tenor of the ore that occurs throughout the whole of any one shoot. It is said that the average value per ton of ore contained in a block between two levels can be very closely estimated by taking the weighted average value of the channel samples cut on both levels.

The values in the vein lie wholly in the gold and silver content. The average grade of ore mined recently is reported to carry about 0.40 oz. gold and 1 ounce of silver per ton. Very little free gold is present in the vein, and the values are chiefly associated with pyrite, marcasite, arsenopyrite, and chalcopyrite.

The Cougar vein strikes about NE-SW and dips between 60 to 70 degrees southeast.

Present State of Development:

The Cougar vein is developed by five levels over a vertical interval of approximately 500 feet. Nos. 1, 2 & 3 levels are drifted in from the surface. Nos. 4 and 5 levels are developed by means of a two compartment shaft sunk from an interior shaft station on No. 3 level 270 feet below that level. The development on 4 & 5 levels has been northeast from the shaft. The vein has a structurally negative character south west from the shaft and has not merited development. Both NE faces of 4 & 5 levels are said to be in medium grade ore. Although no raises have been driven between the levels it is reasonable to assume, on the basis of past operation experience, that a fair tonnage of medium grade ore is developed between these levels. No. 1 level has been advanced NE quite recently from a main transfer raise from No. 2, and 50 to 60 feet of shipping ore was developed according to Mr. Lydon. The face is still in ore. Shipping ore is ore that averages 0.47 ounces in gold per ton or better. As was the case on both 5 & 4 levels no raising has been done on No. 1, and the vertical extent of the ore is unknown. A back of approximately 250 feet lies over the No. 1 drift at the point where the shipping ore is developed.

Mining Conditions:

Mining conditions are very good. The walls stand well, and nearly all the stopes are of the open, stilled type. No back fill is required. Many of the stopes have been opened for years. The water condition on the lower levels is not bad, and a 25 H.P. motor working intermittently 20 minutes out of the hour is said to handle all water from the shaft; Ventilation is natural and apparently of a good order.

Milling Conditions:

The mill was not visited. It is of the flotation type and treats 70 to 80 tons of ore per day. A \$100 to \$130 concentrate is produced from \$10 to \$15 ore. Percentage of recovery averages around 90%, although it is said that it has been much lower in the recent past. The ore is complex to treat and apparently many metallurgical kinks remain to be ironed out. Tailing losses for a 0.40 ounce mill head are said to run around 0.04 ounce. It is understood that one of the principal reasons for suspending operations at present has been the great difficulty in securing and keeping experienced mill operators.

The following are production and cost data taken from office records:

<u>Year</u>	<u>Tonnage</u>	<u>Value</u>
Prior to 1939	Unknown	Est. \$50,000
1940	17,765	206,263
1941	10,804	<u>121,522</u>
	Total for 1940 and 1941	<u>\$327,785</u>

COSTS PER TON JUNE TO DECEMBER 1940

Mining	5.323
Milling.	4.254
Marketing.	1.963
Misc.	0.784
Royalty	<u>0.456</u>
Total.	\$12.780

These costs are presented merely to give a rough idea of the probable operating problems a new operator would have to face. It is apparent that the total costs as given for the period June - December, 1940 place the property in a distinctly marginal class as regards its profit making ability.

H.F. ANDERSON

Owners: Independence Mining Co., Appleton, Wisconsin.

Operators: Cougar-Independence Lessees. G.P. Lilley, general manager; G.T. Vandel, general superintendent; J.B. Isgrig, office manager; Ben O'Fray, mine superintendent; Bruce Stoddard, mill superintendent.

Location: Three miles north of Granite in SW $\frac{1}{4}$ sec. 29, T. 8 S., R. 35 E. The Cougar is located on the east fork of Ten Cent Creek, the Independence over the ridge on Granite Creek to the east. It is about 4 miles north of Granite.

Area: Seven patented, fifteen unpatented, and two fractional unpatented lode claims.

Development: At the Cougar Mine development consists of 725 feet of drift and crosscut on no. 1 level; 1700 feet on no. 2 level; 1420 feet on no. 3; 450 feet on no. 4; a two-compartment shaft sunk 270 feet below no. 3 level or 440 feet below the outcrop, and a shaft station cut on no. 5 level. It is estimated that there are 2000 feet of raise.

At the Independence Mine, which is idle at present, the development consists of an upper tunnel 250 feet long and a lower level consisting of a 1020 foot tunnel and a 1200 foot crosscut to the vein.

Miscellaneous: Timber for the mine is hauled about six miles. Winter weather is fairly severe with a snowfall of 30 to 60 inches. Transportation is, therefore, difficult and expensive during the winter season. Seventy men are employed at the mine.

Geology: Cougar Mine: In the vicinity of the Cougar Mine the country rock is grey to black argillite, in general thin bedded. A considerable amount of carbonaceous material is noted, particularly near the hanging wall of the vein in the vicinity of the major orebody. Many dikes traverse the argillite, having a strike from north to northwest and dipping SW from 65° to 85°. The greater percentage of these are light-colored, where exposed near the vein zone, but several have been noted that have a preponderance of dark-colored minerals and a more granular structure. In the absence of definite data for classification, they are locally designated as acidic and basic. Hewett classifies the dikes of the district as aplite (light) and quartz diorite to quartz monzonite (dark). They are pre-mineral with respect to the Cougar vein, having been displaced a considerable distance by the vein fault with the resulting drag forming a part of the vein-filling.

The strike of the vein ranges between N. 43° E. and N. 50° E. with a dip to the SE from 70° to 83°. Strike is remarkably uniform over a given distance within the ore zone but the dip varies considerably in short distances between the limits given above. Width is from a few inches to 2 feet outside the productive areas to from 3 feet to 9 feet within the orebodies that have been mined to date.

Mineralization occurs along a fracture that has approximately 340 feet horizontal displacement with considerably less vertical movement as determined from correlation of footwall and hanging wall dikes. For all practical purposes the dikes may be considered as striking at right angle to the vein fracture and are displaced by the vein fault. In the locality of numerous footwall and hanging wall dikes the vein contains a considerable amount of mineralized, altered dike material and is considered to be present as drag into the vein fissure during movement along the vein walls. The vein fissure is considered to be a normal fault with movement along a northeast direction and as a consequence dike material fills the vein from the hanging wall of a footwall dike to the footwall of a hanging wall dike. In other sections of the mine where no dikes on either footwall or hanging wall are in evidence with sufficient width to produce the amount of dike filling that now exists, it is concluded that a dike was intruded into the vein fracture before the vein minerals. Hewett states that "In several places it seems clear that some dikes were intruded before the vein-bearing fractures were formed; afterward other dikes were intruded on the fractures but before the quartz, gold and associated minerals were deposited."

The Cougar Vein is of the "composite type" made up of several strands. The width seems to be influenced to a great extent by the enclosing rock as shown by an appreciable increase in vein width at places where the vein fracture passes from argillite to a dike zone. The central portion of the vein often is a breccia composed of angular slate fragments cemented by quartz and dolomite with many open vugs lined with needle-like quartz crystals. The hanging wall section of the vein shows considerable black gouge and carbonaceous material while in many cases the footwall shows only a very narrow band of broken, gouge material. Gold values are largely confined to the area between foot and hanging walls although gold is shown from assay of material at a considerable distance from the vein, in minor amounts.

A limited amount of microscopic work on thin sections and briquettes has been done by John Grove 1/. This work has not indicated the presence of free gold as would be expected, since none can be obtained from panning of finely ground concentrates. However, higher magnification may show the existence of free gold. The secondary or later quartz shows comb structure and has a very vuggy appearance; the original quartz is very fine grained and probably is a colloidal deposit. Grove further states that "the paragenesis of the minerals is as follows: original quartz, pyrite, later quartz, and arsenopyrite and chalcopyrite". In this work he did not note the evidence of any carbonates, but it is definitely known that in many portions of the vein the filling consists largely of dolomite which has been later broken and recemented with quartz and dolomite. Qualitative chemical analysis shows that siderite exists in certain sections of the vein where it is seen to fill many small veinlets, and appears to be of a crystalline nature with the crystals projecting inward from each wall of the small fractures. In some cases, as shown by chemical analyses, the mineral should more correctly be classed as ankerite.

The ratio of sulfides to vein filling is approximately 1:10 although higher and lower ratios have been obtained from milling operation.

Equipment: Mine - One 550 cu.ft. Ingersoll and ^{Rand} horizontal type compressor powered by 100 h.p. motor; one 280 cu.ft. Gardner ^{Denver} vertical type compressor; numerous jack hammers, stopers, and drifters; mine cars and track; one 30 h.p. hoist in main shaft and one 7½ h.p. auxiliary hoist; Eimco-Findlay loader.

Mill - The mill treats 80 tons of sulfide ore which averages \$10 to \$15 and makes a \$100 to \$130 concentrate. Mill recovery averages 90 percent.

The flowsheet is as follows: Mill ore trammed from mine and dumped into 150-ton coarse ore bin. From coarse ore bin fed over 1½ inch grizzly to 8x20 inch jaw crusher. Undersize and crushed product delivered to 70-ton fine ore bin by 18 inch belt conveyor. Fine ore bin to 6x6 foot Colorado Iron Works grate discharge ball mill. Minus 10 mesh ball mill discharge to number 250 Denver Sub-A unit flotation cell. Unit cell tailing to 4'6" type C Dorr duplex classifier in closed circuit with ball mill. Unit cell concentrate to cleaner circuit. Classifier overflow at 20 to 25 percent solids to 12 number 18 Sub-A flotation cells. Concentrates from first two cells to cleaner circuit of four 22x27 inch Denver Sub-A cells. Concentrates from cells numbers 3, 4, 5, and 6 returned to number 1 cell. Middling from cells numbers 7 to 12 inclusive returned to number 3 cells. Tailing to waste. Tailing from cleaner circuit to Dorr simplex classifier; overflow to Dorr duplex classifier and sands to ball mill for regrind. Concentrate from cleaner circuit to 8x10 foot Dorr thickener. Clear overflow to waste. Thickener underflow to Oliver filter. Concentrate trucked to Baker and shipped via Union Pacific Railroad to United States Smelter at Salt Lake, Utah. Forty-six cars of concentrate were shipped during 1940.

Reagents used in the mill are soda ash, sodium metasilicate, pine oil, xanthate Z-6 and American cyanamid 301.

Informant: G. T. Vandell, H.K.L. 2/4/41.

"The country rock is a black siliceous and semi-slaty argillite. The strike of the lode is northeast and its dip is 60° to 70° SE. The underground workings, combined with the surface pits, trace the lode for about 2000 feet. The outcrop on a gently rolling timbered ridge is inconspicuous. The lode is from 2 to 10 feet wide, although in the lower and recent development it appears in one place to be much wider. The walls over a considerable area in the stopes are fairly well defined, although the filling is largely brecciated argillite.

"There is very much less quartz than in most of the brecciated zones in argillite in eastern Oregon. Aside from the quartz and shattered argillite there is a gouge of light color that is said to contain the highest values, which gradually lessen away from it. This would indicate that the ore was deposited by a combination of replacement and quartz filling of the smaller fractures. There are 3 or 4 shoots in the 1200 feet of development on the strike of the vein, whose combined stopping length is more than half that distance. According to reports there is a large tonnage of ore averaging nearly \$7 a ton, and a much smaller quantity in one block, which contains nearly twice that value per ton.

"A few thousand tons at various times have been stoped and treated in a crude mill upon the property, but there is practically no free gold even at

the surface. Cyaniding this ore, which is by no means easy to treat, although the sulfides are nearly all pyrite, has been attempted by incompetents or else the management so interfered with competent metallurgists that they gave up in disgust before a process could be successfully established.

"Of the gross value in the tonnage of ore treated, all but a tithe went down the creek. In the last few years work has been confined to development 100 feet below the mill level for 500 feet along the vein. (Parks and Swartley 16:81).

In discussing the Independence Mine Parks and Swartley say: "The vein is explored for about 1100 feet along the strike N.50° E., and to a depth of 190 feet below the outcrop. The vein dips 65° SE. Two shoots, 320 feet and 120 feet long, having average widths of 3 and 2.8 feet respectively, have been developed. The first of these has been stoped to a height of 60 feet above the tunnel, and is known 100 feet lower in a drift from the shaft. In the accessible workings the vein, which contains only a meagre amount of quartz, is composed of sheared argillite and gouge much stained with limonite. Unoxidized ore from the 100-foot level shows altered argillite breccia cemented by dense dolomite with minor quartz. Locally a breccia of both minerals is cemented by chalcedonic silica. Pyrite and arsenopyrite were observed both in the argillite fragments and in the cement, although tetrahedrite and pyrargyrite appear to be confined to dolomite. Faint stains of proustite occur on fractures. The total content of sulphide minerals does not exceed a few percent. In the oxidized zone manganese stains are abundant, both on the walls and in the vein mineral.

"According to Mr. Walter Gleason, an owner, the average of a number of assays in the oxidized zone of the longer shoot is 2.66 ounces silver and .43 ounces gold per ton, and in the unoxidized ore, 100 feet lower, the average is 9.3 ounces silver and 1.06 ounces gold. These averages indicate a ratio of silver to gold in oxidized ore of 6 to 1, compared with 9 to 1 below, as well as considerable increase in the value of the ore. The associations of the rich silver minerals strongly suggest that this increase in value is to be attributed to downward enrichment, following the weathering and erosion of the superficial portion of the vein. The extent of exploration on the vein, however, does not warrant a statement of the extent to which ore has been enriched by this process.

"Several light decomposed dikes, 2 to 4 feet wide, with southeast courses, have been found in both walls. These terminate against the vein and indicate that it fills a fault fissure, although the amount of displacement has not been determined.

"The attempt made in a mill on Granite Creek to extract the gold and silver from this ore by an adaptation of the cyanide process was unsuccessful".1/

The following is taken from a table in Hewett 31:16:

"Cougar: Development- 3 tunnels, total 3000 feet; middle follows vein 1300 feet; attains 350 feet below outcrop.
Relationships:-Vein in argillite; many premineral dikes. Strikes N. 45° E., dip 78° SE. Quartz, pyrite.
Milling and Production:- Meager record. Ratio of gangue to sulphides high. Gold nearly equal to silver. Little free gold. Small production.

"Independence:- Development: 3 tunnels, total 3500 feet; lowest follows vein 950 feet below outcrop.

Relationships:- Vein in argillite (carbonaceous); many pre-mineral dikes. Strike N.55° E., dip 66° SE. Quartz, dolomite, pyrite, arsenopyrite, pyrrargyrite, and chalcody. "

Hewett 31:23 described the Independence ore deposit as follows:

"The Independence mine explores a single vein of composite type. The width of the vein commonly ranges from 3 to 4 feet but locally attains 5 to 6 feet between a persistent hanging wall and a less definite footwall. It generally contains a single strand of quartzose ore but locally shows four strands. Structurally each strand has a complicated make-up. The simplest parts of the vein show alternate layers of quartz containing minute arsenopyrite crystals and dolomite that surround angular fragments of argillite. Elsewhere corroded angular fragments of dolomite are enveloped and partly replaced by quartz containing minute grains of pyrite, arsenopyrite, and blende".

References: Swartley 14:135.

Pardee and Hewett 14:104.

1/ Parks and Swartley 16:81-129 (quoted)

2/ Hewett 31:7,8,9,10,16,23,32,35,39 (quoted).

GRIFFITH (Placer) Bald Mountain District Granite Area

Owners: W. J. and Nancy Ryder, Sumpter, Oregon.

Location: In sec.16 and 17, T.9 S., R.36 E., near the headwaters of Channel Creek.

Area: 3 unpatented placer claims.

History: Operated 40 years ago when a large yardage was hydraulicked off. At that time there was a very large boarding house and numerous cabins. The old ditch was 10 miles long from Mt. Ireland and gave a 150-foot fall with 2000 inches of water.

"The Griffith placers are in a high terrace about $3\frac{1}{2}$ miles northwest of the Weaver mine (located near the head of the north prong of Buck Gulch) at an elevation of approximately 5500 feet, and on the opposite or west slope of the Blue Mountain divide. The portion of the ridge separating the two places is from 200 to 400 feet higher.

"Lindgren has described this deposit and records that in 1900 'a hydraulic pit about one acre in extent has been made in the high gravels, and a bank 40 feet high is exposed'. The present area of this pit is about the same. Evidently little or no mining has been done since that time. Early in the past season (1909) operations at a point just west of this old pit were commenced, but after a short time they were suspended because of litigation. The gravel here lies unconformably upon fine sediments very similar to those of the Weaver mine and is thickly bedded, striking northwest and dipping 12° NE.

"In its general texture this gravel resembles that of the Weaver mine, and it is likewise affected by normal faults, one of which strikes north, with vertical dip and downthrow of 6 feet on the west.

"Considerable 'black sand' is said to collect in the sluices, and a sample of it was obtained from G. T. Pinson. Platinum was detected in this sample by D. T. Day, in greater quantity than in the sand from the Weaver mine, amounting to about $1\frac{1}{2}$ ounces per ton. In addition, this sample contained a considerable amount of gold amalgam and a few flat particles or 'colors' of rusty gold. Both this and the sand from the Weaver mine are by the partial examination made shown to be well worth saving. These occurrences of platinum are interesting as being from new localities, and the metal's close association there with serpentinized rocks is in line with its general occurrence elsewhere.

"The extent of this deposit has not yet been definitely determined by prospecting. It seems, as noted by Lindgren, to extend northwestward for a mile or more, and apparently disappears under a basalt flow".

Recent development: Short ditch from the creek, 125 feet of 7-inch pipe.

Geology: Most of the bedrock is decomposed granite with some argillite to the north and east near the head of the placers. The old cuts, one of which has a 50-foot face and is over 300 feet across, are not being worked. They are composed of bedded gravels averaging less than 2 inches in diameter but containing numerous boulders from $\frac{1}{2}$ to 2 feet in diameter. All are well rounded and polished and the composition is about 30% aplite and 70% argillite with some quartzite. Above the old working a gently sloping bench at least $\frac{1}{4}$ mile square gives promise of considerable virgin territory if water could be developed. The placers downstream from this old channel are secondary gulch type. The gravels are fine and sandy for the most part and contain a large amount of black sand. Gold is fine and distributed evenly through the entire thickness of from 5 to 8 feet. 35¢ and 75¢ pieces are said to be occasionally found. A cut-off meander on the stream perhaps 300 yards long and 50 feet wide (called the Curve) gives promise of some virgin ground.

Miscellaneous: Timber is abundant and some water for a one-man operation is available from 6 to 9 months of the year.

Informant: W. J. Ryder; J.E.A. 9/27/38.

Reference: Pardee 14:187 (quoted).

The Cougar-Independence Mining Company has closed down operations at its property in Grant County four miles north of Granite, Oregon. The company has been shipping ore from Sumpter since the first of the year while the 100-ton mill was being repaired, but the shutdown was necessary when the lessees could not get the needed repairs. The company was formed in September of 1941 by Latham Flanagan and H. S. and L. S. Van Kirk, all of Pittsburgh, Pennsylvania. Gailen T. Vandell was general superintendent at the mine. About 60 men have been employed in mine and mill operations.

MJ 2/15/42