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March 17, 1944

MEMORANDUM

PORTLAND GOLD MINE
MOHAVE COUNTY

TO: W. C. Broadgate

FROM: J. S. Coupal

I am enclosing a report by Holt on the Portland gold mine together with a memorandum which he has forwarded regarding it.

This is one of the few sizeable gold properties in the state and I believe it is worthy of calling to the attention of the people you mentioned.

JSC:LP
Enc.

August 31, 1944

Mr. Fred W. Koehler
Room 521 Guaranty Bldg.
Hollywood Blvd.
Hollywood, California

Dear Sir:

At the request of Mr. Elgin B. Holt, field engineer, we are enclosing copy of his report on the Portland Mine.

Yours very truly,

Secretary

lp
Enc.

August 30, 1944

DEPT. MINERAL RESOURCES
RECEIVED
AUG 31 1944
PHOENIX, ARIZONA

To: Lorraine Porter

From: Elgin B. Holt

Subject: Report on Portland mine

Kindly mail a copy of my report on the PORYLAND MINE to:

Mr. Fred W. Koehler,
Room 521 Guaranty Bldg.,
Hollywood Blvd.,
Hollywood, Calif.

Thanks.

Elgin B Holt

Elgin B. Holt

Don
Please make 2000
copies & bring to office
Fri

GEOLOGICAL REPORT
ON THE
PORTLAND GOLD MINES PROPERTY
MOHAVE COUNTY, ARIZONA
for
CEDAR CITY MINES LTD. (N.P.L.)

January 14, 1975
Vancouver, B.C.

L. Sookochoff, P.Eng.,
Consulting Geologist

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TITLE	SCALE
LOCATION MAP	1" = 45 miles
CLAIM MAP	1" = 600 feet
GEOLOGY	1" = 400 feet
WORKINGS AND SAMPLING	1" = 100 feet

PART A

SUMMARY AND CONCLUSIONS

The Portland Gold Mines property consists of 3 patented claims and is located in the Oatman District in Sections 14 and 15, Township 23N, Range 21W, Mohave County, Arizona. Access is via paved and gravelled roads north and west of Kingman, Arizona.

The semi-arid climate is favourable for year-round operations.

All logistics involved in an exploration programme are excellent.

Railroad facilities are available in Kingman, Arizona, some 45 road miles from the property.

Exploration and development has been carried out by various owners and leasors with the bulk of production totalling 132,000 tons occurring during 1935 and 1939. The production came primarily from the "South Tunnel Ore Body" where the bulk of the ore was mined by open pit methods. Minor production came from the "Little Ore Body" with limited tonnage from the "North Tunnel Ore Body."

Extensive sampling has been done on the property since production ceased in 1939. Reported ore reserves of approximately 300,000 tons averaging $6.64/ton at $35.00 gold, which, at today's prices, would be $33.20/ton ($175.00 gold).

A total of 335 feet of X-ray diamond drilling was done in the open pit area of the "South Tunnel Ore Body" most of which showed values in the country rock to a depth of 130 feet with a grade of 0.08 oz Au/ton and 0.96 oz Ag/ton in the footwall area of the main limestone unit.

Percussion drilling in December of 1974 intersected zones containing significant gold and silver values. The best intersection was a 25 foot section of .076 oz Au/ton and 0.82 oz Ag/ton which at recent metal prices would be valued at $17.40/ton.

Other significant intersections were of .075 oz Au/ton and 0.33 oz Ag/ton over 10 feet and .085 oz Au/ton and 0.52 oz Ag/ton also over 10 feet.

Assays within the footwall and hangingwall of the main zone were generally less than .025 oz Au/ton.

The method of air percussion drilling that was utilized was not adequately equipped for full recovery of the cuttings to assess the actual value of the intersections. Therefore it is felt that core drilling as a follow-up programme could possibly reflect the values of previous core drilling and former and recent detailed sampling.

The property is underlain by altered andesites and siliceous limestone of Tertiary Age. A thrust fault marks the hanging wall contact between the limestone and andesite. The zones trend northerly and dip at a low angle to the east. The drilling and pit development in the "South Tunnel Ore Body" suggests a thickness of at least 200 feet.

The mineralization appears to be sub-microscopic and may possibly be colloidal in nature.

The potential ore in the vicinity of the "North Tunnel Ore Body" and the "South Tunnel Ore Body" workings and the possible extensions could be in the range of several million

tons of low grade ore which could be developed with a detailed drilling programme.

The topography is such that any such tonnages developed would be amenable to inexpensive open pit mining methods.

RECOMMENDATIONS

It is recommended that a programme consisting of diamond drilling, geological mapping and prospecting be carried out on the property. Additional claims should be staked to cover all possible extensions of the mineralized zone.

It is also recommended that Cedar City Mines Ltd (N.P.L.) allocate the sum of $50,000.00 to implement the recommended exploration programme.

Respectfully submitted,

L. Sookochoff, P.Eng.,
Consulting Geologist

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
LAURENCE SOOKOCHOFF

January 14, 1975

Vancouver, B.C.

GEOLOGICAL REPORT

ON THE

PORTLAND GOLD MINES PROPERTY

MOHAVE COUNTY, ARIZONA

for

CEDAR CITY MINES LTD. (N.P.L.)

PART B

INTRODUCTION

The following report has been compiled from information obtained by the writer during a personal examination of the surface and underground workings located on the property on December 8-18th inclusive, 1974; from a study of available past records of work and production carried out by previous and present owners, and from public and private publications.

PROPERTY

The property consists of three contiguous patented claims, namely, the Portland, Sunshine and Sunshine No. 2 (U.S. Patent No. 3757) and 6 located claims, the Shirley 1-6 incl.

OWNERSHIP

The patented claims are owned jointly by the following:

Mona G. Potter,
Apartment # 5
305 East California Street,
Pasadena, California

Samuel L. Clark and Lavonne G. Clark
3955 Maple Tree Drive,
Anaheim, California 92807

Leland M. Wiscombe and June N. Wiscombe,
4341 Wilderness Court,
Birmingham, Alabama, 35213

The patented claims are held under option from the above owners.

LOCATION AND ACCESS

The property is located in Sections 14 and 15, Township 23, North, Range 21 West, Gila and Salt River Base Meridian, as shown on Mohave County Assessors Map 43, Book 307.

The property is accessible by paved and gravelled roads from Kingman, Arizona and is reached by travelling 27 miles north from Kingman on the paved Boulder-Kingman Highway U.S. 93. The Cottonwood Wash Road heads west from the highway and is travelled for a distance of 8.9 miles. From this point the mine access road heads southwesterly to the property, a distance of some 11 miles.

A truck or four-wheel drive vehicle is required for the last eleven miles.

All the workings are accessible by roads.

TOPOGRAPHY

The topography is relatively gentle with very slight relief as is typical of the western foothills area of the Black Mountain Range.

CLIMATE

The semi-arid climate is characterized by high summer temperatures with low humidity and mild winters. The annual precipitation is only from 6 to 9 inches, making it a favourable climate for year round operations.

WATER

Water is non-existent on the surface but wells could supply sufficient water for exploration. The Colorado River is located five miles to the west of the property.

POWER

Diesel electric power would be necessary for the initial stage of development but hydroelectric power would be available from the Kingman-Boulder power line for future milling purposes.

TRANSPORTATION

Truck transportation to railhead in Kingman would be available.

SUPPLIES

Most supplies would be obtainable from Kingman, Boulder City and Phoenix in Arizona or Las Vegas, Nevada.

HISTORY

From information available, the first records of development and production were during the period between 1935 and 1939. The development work consisted of some 700 feet of lateral work and some 400 feet of incline shaft.

Considerable trenching or open cutting has been done in the area of the outcropping of the three main workings. Open pit mining was carried out on the middle or "South

Tunnel Ore Body". The pit measures approximately 300' x 200' x 75'.

(i) Production

Past recorded production totalled 132,000 tons of ore which netted $7.89/ton based on $35.00/oz of gold. The ore was mined and shipped to the Katherine mill a distance of some 10 miles.

Production figures from August 13 to August 25, 1935 show 516.20 tons of ore shipped with a weighted average grade of 0.347 oz Au/ton and 1.22 oz Ag/ton.

Recovery of the metals by the cyanidation process was 93% of the gold. Silver recovery was not recorded.

The Katherine Mine flooded in 1939, hence the mill was shut down followed by the cessation of operations at the Portland Mine.

(ii) Sampling

During July 1940 Dr. Emil J. Rausch sampled all the underground workings and surface exposures. A total of 203 samples were cut which gave an average grade for the three

developed workings and surface areas of $7.03/ton in gold values at $35/00/oz Ag. At present day prices the value would be approximately $35.00/ton.

Clyde M. Becker, M.E. reported proven ore reserves calculated from some 700 feet of development work at 287,000 tons with an average value of $6.64/ton @ $35.00 gold. Today's prices would impart a value of approximately $33.00/ton. Mr. Becker's tonnage breakdowns were as follows:

Little Ore Body	6,000 tons @ $14.00/ton	($70.00)
South Tunnel Ore Body	200,000 tons @ $ 6.14/ton	($30.00)
North Tunnel Ore Body	81,000 tons @ $ 7.24/ton	($36.00)

Recent personal contact was made with John Boissenault, P.Eng. of Timmins, Ontario, regarding sampling carried out by him during 1974. His results of 40 samples gave a weighted average grade of 0.22 oz Au/ton and 1.50 Ag/ton.

(iii) Diamond Drilling

A total of 4 short X-ray diamond drill holes were drilled in the open pit area of the "South Tunnel Ore Body."

HOLE NO. 1 - was located near the south end of the pit; was drilled at -45° with an azimuth of 305°; was collared in the footwall of the main limestone unit, and averaged 0.08 oz Au/ton and 0.96 oz Ag/ton for a length of 130 feet. The hole, plus the main zone and hangingwall portion, suggests a thickness of at least 200 feet.

HOLE NO. 2 - was located near the middle of the pit; was drilled at -10° with an azimuth of 295°; was also collared in the footwall of the limestone unit, and averaged 0.0612 oz Au/ton and 0.90 oz Ag/ton over a length of 85 feet.

HOLE NO. 3 - was located at the north face of the pit and was drilled at +8° with an azimuth of 330°; was collared in the limestone unit and drilled along the zone for a length of 60 feet. The hole averaged 0.318 oz Au/ton and 0.67 oz Ag/ton over its entire length. A five foot section between 45 and 50 feet assayed 2.16 oz Au/ton and 1.22 oz Ag/ton.

HOLE NO. 4 - could not be located in the pit but it averaged 0.224 oz Au/ton and 0.45 oz Ag/ton for a length of 60 feet.

(iv) Rotary Drilling

Six rotary drill holes were drilled during December 1974. The more significant results were as follows:

P-1 - located near the north edge of the South Ore Body and drilled to a depth of 90 feet where the hole broke into some old workings on the main zone. Thus the hole was assumed to be all in the hanging wall and values were up to .025 oz Au/ton and .25 oz Ag/ton.

P-2 - located 100 feet south west of P-1 and was drilled to a depth of 230 feet. The hole was completely in the foot-wall of the main zone. Values ranged up to .025 oz Au/ton and 0.15 oz Ag/ton.

P-3 - located east of the east wall of the North Ore Body and was drilled to a depth of 120 feet. A 25-foot section from 60 to 85 feet averaged .076 oz Au/ton and 0.82 oz Ag/ton. At recent metal prices this would indicate a value of $17.40/ton.

P-4 - located near the Little Ore Body and drilled to a depth of 30 feet. This hole was all in overburden and was abandoned due to caving.

P-5 - located near the Little Ore Body and drilled to a depth of 120 feet. The more significant intersection was from 100 to 110 feet where assays averaged .075 oz Au/ton and 0.33 oz Ag/ton. At recent metal prices this would indicate a value of $14.44/ton.

P-6 - located near the Little Ore Body and drilled to a depth of 40 feet. A 10-foot section from 30 to 40 feet returned assays averaging 0.085 oz Au/ton and 0.52 oz Ag/ton which would be valued at $16.95/ton. The top part of the hole assayed up to 0.025 oz Au/ton and 0.10 oz Ag/ton.

GENERAL GEOLOGY

The Oatman District is generally underlain by rocks consisting of Tertiary lava flows resting on an underlying Precambrian crystalline complex. The lava flows and associated tuffs vary in composition and texture from basalt to rhyolite. The units trend north-south and dip eastward at a low angle.

The Oatman andesite is the most significant formation in the area as all known mineral deposits in the area are generally found in or associated with it. The lavas are generally intensely altered.

Intrusive dykes and stocks of rhyolite porphyry form prominent topographical features in the area.

LOCAL GEOLOGY

The property is underlain by interbedded silicified and crystalline limestone and altered andesite. A thrust fault marks the contact between the andesite and the hangingwall of the limestone units. The fault zone is marked by shearing and hematite gouge. The fault action has probably played a role in brecciating the limestone unit as well as the

footwall and hangingwall andesites. Deuteric quartz has been introduced into the limestone unit and in some areas colloform structure was noted. The highest gold and silver values occur within the limestone.

Quartz and calcite have pervaded into the hangingwall and footwall andesites which carry significant gold and silver values.

MINERALIZATION

The only visible metallic mineral noted in the mineralized rock was rare minute pyrite cubes. The gold and silver minerals appear to be sub-microscopic which suggests that the minerals may be colloidal in nature. Such a case would conceivably be the reason for the pervasiveness of the gold and silver values evident in both the limestone and altered andesite.

A total of three main workings exist on the property over a distance of approximately one-half a mile.

"Little Ore Body"

The "Little Ore Body" workings consist of a cut along the strike of the surface exposure of the limestone unit and some

underground development including a 100 foot deep inclined shaft and some stoping. The silicified limestone unit strikes at 290° and has a dip of -30° to the north east. The actual thickness of the zone could not be determined as the footwall was not exposed in the underground workings. A chip sample taken approximately 50 feet down the -45° incline shaft assayed 0.16 oz Au/ton and 0.06 oz Ag/ton across a width of 7.0 feet. Previous assaying of the "Little Ore Body" gave a value of $70.00 per ton based on present day values for gold with a 6,000 ton ore reserve.

The zone could be the same zone that the other two workings are on or could well be a parallel unit. There are several limestone units within the vicinity of the property. Several trenches have traced the zone for over 300 feet along the surface.

"South Tunnel Ore Body"

The "South Tunnel Ore Body" is located approximately 1200 feet at 10° from the "Little Ore Body" workings.

The development consists of a 200 foot long drift above which some stoping has taken place and an open pit has been developed above the drift. The open pit has dimensions of about 300' x 200' x 75'. The zone strikes at 310° and dips N.E. at -30°.

The work done in the pit and underground, plus the diamond drilling carried out in the pit, suggests a mineralized section of at least 200 feet in thickness. The limestone unit varies between 12 and 25 feet thick where worked.

Previous sampling of the underground and surface exposures on the zone averaged $6.14/ton ($30.00) for an ore reserve figure of 200,000 tons.

A 14-foot chip sample cut in the stoping that was done in the southeast corner of the pit assayed 0.08 oz Au/ton and 0.58 oz Ag/ton.

A chip sample cut along the wall of the last 100 feet of the 200-foot long drift which was along the footwall area of the limestone horizon, assayed 0.02 oz Au/ton and 0.62 oz Ag/ton.

"North Tunnel Ore Body"

Approximately 800 feet at 10° from the open pit on the "South Tunnel Ore Body" a surface cut and underground development represent the work carried out on the "North Tunnel Ore Body." The zone here strikes at 000° and dips at -33° to the east.

Previous sampling gave a grade of $7.24 ($36.00)/ton for a reserve figure of 81,000 tons.

A chip sample cut from the main stope area assayed 0.18 oz Au/ton and 1.60 oz Ag/ton across 8.4 feet. The zone is exposed in the workings for 30 feet.

Samples cut in a shaft which has been sunk on the zone averaged $10.46 ($52.00) across 30.5 feet.

The zone has been developed by parallel winzes to a depth of 50 feet and 150 feet respectively with minor sub levels.

A crosscut driven at 250° into the footwall of the main zone has revealed the presence of another limestone unit which has been exposed across a 10-foot width with the face of the crosscut remaining in the limestone.

Underground chip sampling by the writer within a drift near the "North Tunnel Ore Body" revealed an average grade of 0.19 oz Au/ton and 0.26 oz Ag/ton over 72 feet which included 12 feet of 0.39 oz Au/ton and 0.47 oz Ag/ton. The true width of this section is not known.

ORE RESERVES

Ore reserves calculated from the workings totalled approximately 300,000 tons with a value of $7.03/ton ($35.00 gold). At present day prices this would be approximately $35.00/ton which would represent a grade in both instances of about 0.20 oz Au/ton. The silver associated with the ore should average around 1.0 oz Ag/ton.

POTENTIAL ORE

With the advent of a much higher price for gold and silver than prevaled over the past 30 odd years, and with the knowledge of low grade gold and silver values in the altered volcanics forming the footwall and hangingwall of the better mineralized silicified limestone, the potential for developing large tonnages of low grade ore are excellent.

The topography of the hangingwall area reflects a dip slope to some extent and could render the mineralized zone to be amenable to cheap open pit mining methods with a favourable ore to waste ratio.

The apparent dimensions of that portion of the zone developed by the "South Tunnel Ore Body" and the "North Tunnel Ore Body", within the limits of the underground workings and between

the workings, are 1,500 feet x 500 feet x at least 200 feet. The actual thickness of the mineralized section has yet to be determined.

Several million tons of open pitable ore could possibly be developed with a detailed drilling programme.

EXPLORATION PROGRAMME

Diamond drilling should commence at once to establish strike length, depth and thickness of the zone.

In conjunction with the drilling, geological mapping and prospecting should be carried out over the area including that area which should be staked to cover all extensions of the known zones and to cover other possible zones.

Some bulldozer work will be required to provide access to drill sites and to trench other areas on the property that have yet to be tested.

ESTIMATE OF COSTS OF EXPLORATION PROGRAMME

Diamond Drilling 2000 feet @ $15/foot	$30,000.00
Assaying - 400 assays @ $10/assay including shipping	4,000.00
Geological mapping and prospecting	2,000.00
Engineering and Supervision	4,000.00
Travel and Living Expenses	3,000.00
Bulldozer - Roads and Drills etc	1,500.00
Staking	1,000.00
Contingencies	4,500.00
	$50,000.00

It is estimated that the above programme should take approximately three months to complete.

Upon the successful completion of the above programme, a second phase should be initiated to further delineate the zone. This should consist of a 10,000 foot drilling programme that should have a total estimated cost of approximately $150,000.00.

Respectfully submitted,

Laurence Soukochoff, P.Eng.,
Consulting Geologist

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
LAURENCE SOUKOCHOFF

January 14, 1975

Vancouver, B.C.

CERTIFICATE

I, LAURENCE SOOKOCHOFF, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geological Engineer and an associate of T.R. Tough & Associates Ltd., with offices located at 519-602 West Hastings Street, Vancouver, British Columbia.

I further certify:

1. That I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
2. I have been practising my profession for the past eight years.
3. I am registered with the Association of Professional Engineers of British Columbia.
4. This report is based on information obtained by the writer from a personal examination of the property December 8-18th, 1974 and from public and private publications as listed in the bibliography.
5. I do not own any direct or indirect interest in the property described herein nor in the securities of Cedar City Mines Ltd. (N.P.L.) nor do I expect to receive any therein.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA LAURENCE SOOKOCHOFF

Laurence Sookochoff, P.Eng.
Consulting Geologist

January 14, 1975
Vancouver, B.C.

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4. Report on the Portland Mine by Clyde M. Becker, circa 1940.

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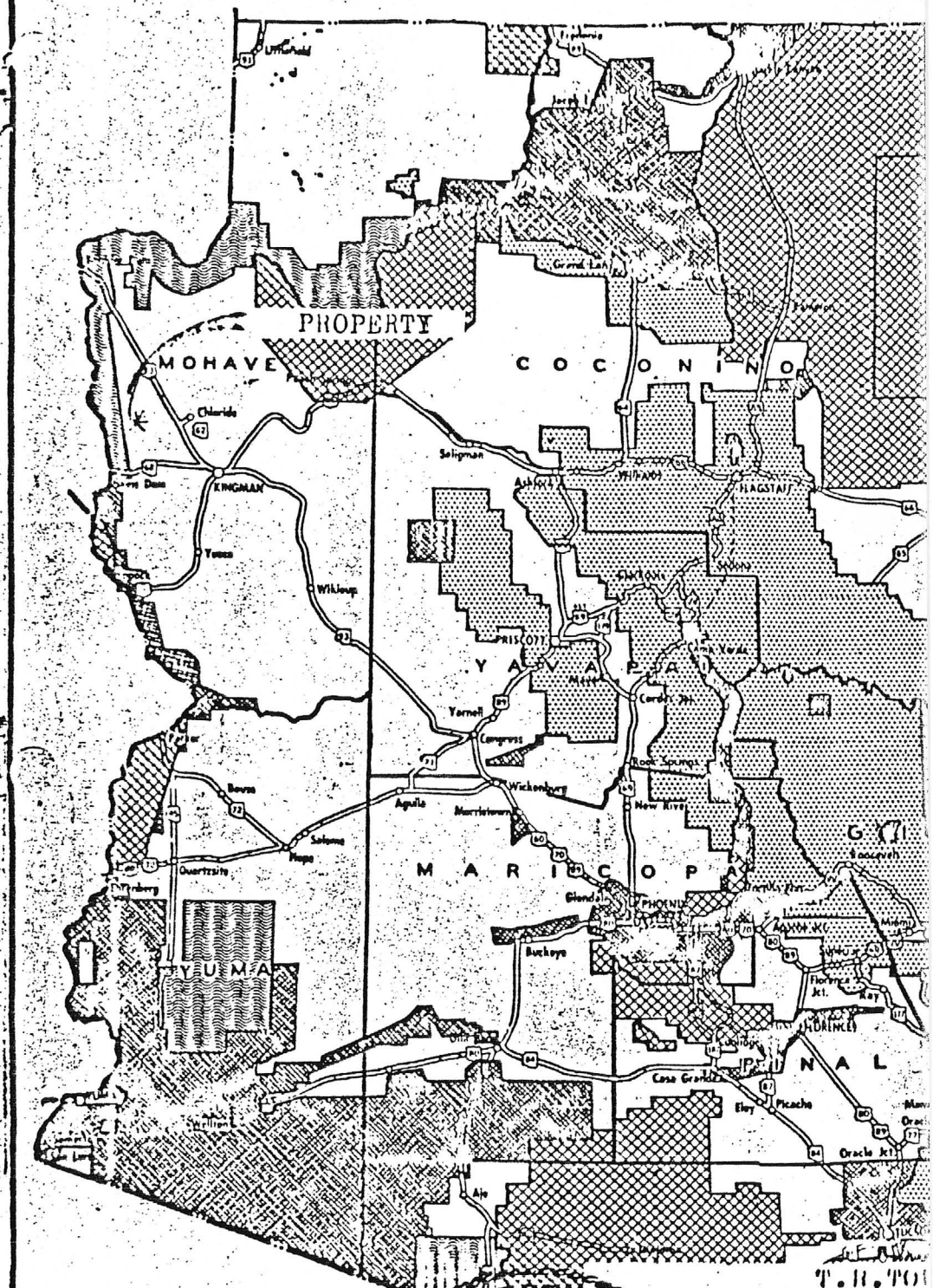

STATE OF ARIZONA

DEPARTMENT OF MINERAL RESOURCES

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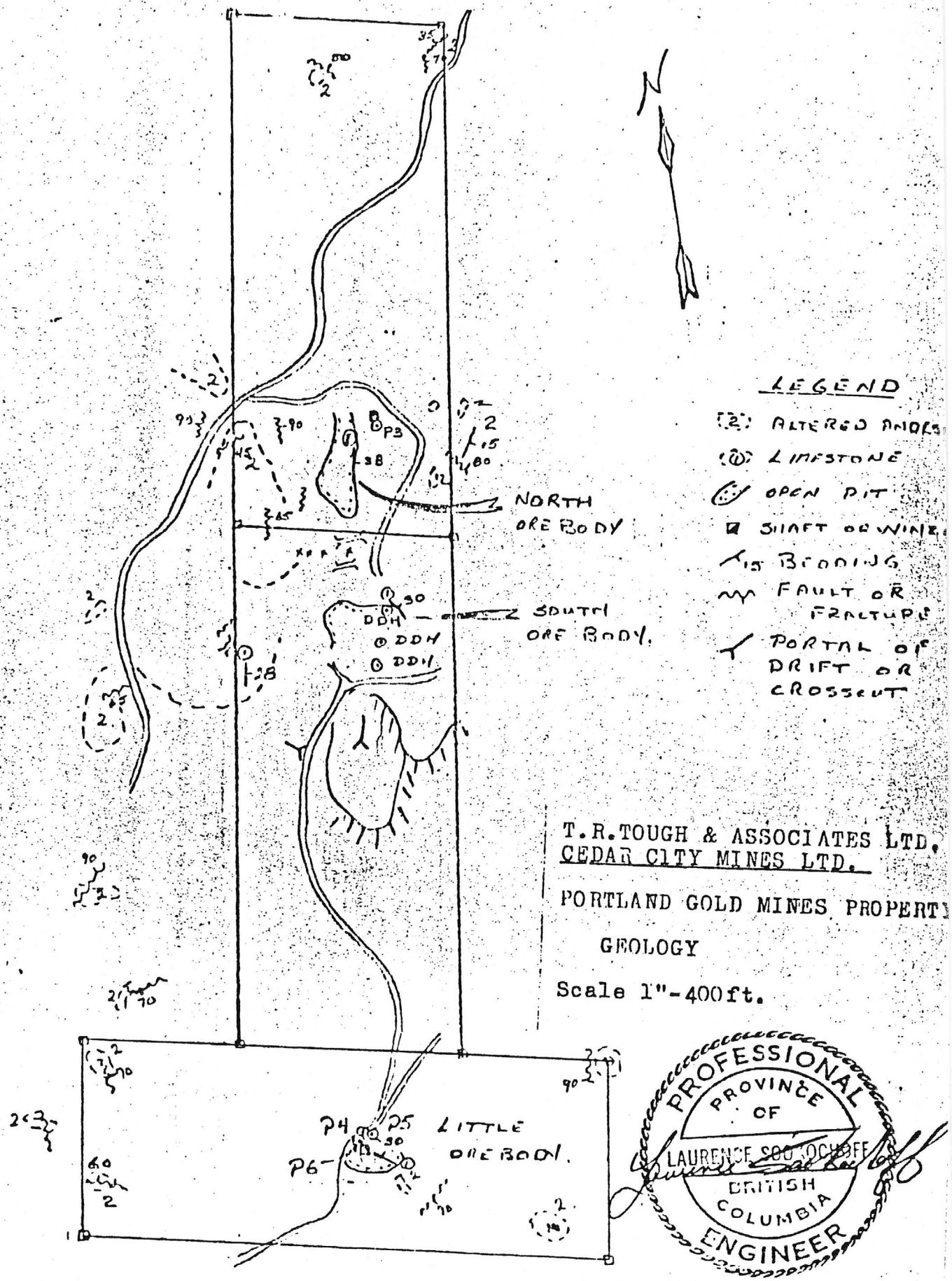
SCALE - MILES

1970

PROFESSIONAL
PROVINCE
OF
LAURENCE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LITTLE ORE BODY.
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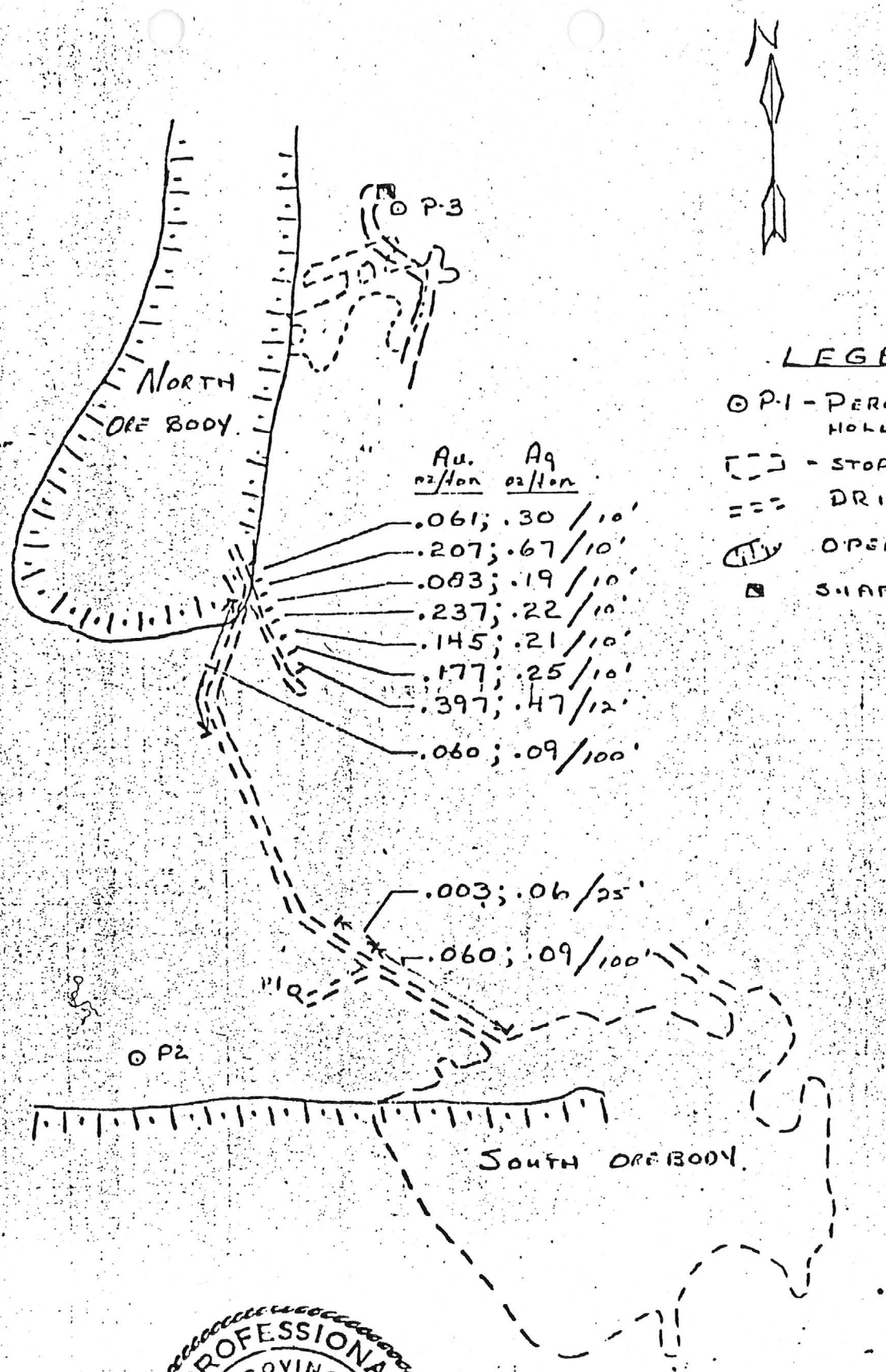
CEDAR CITY MINES LTD.
PORTLAND GOLD MINES PROPERTY
GEOLOGY
Scale 1"-400ft.
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
LAURENCE SOO OCHOFF



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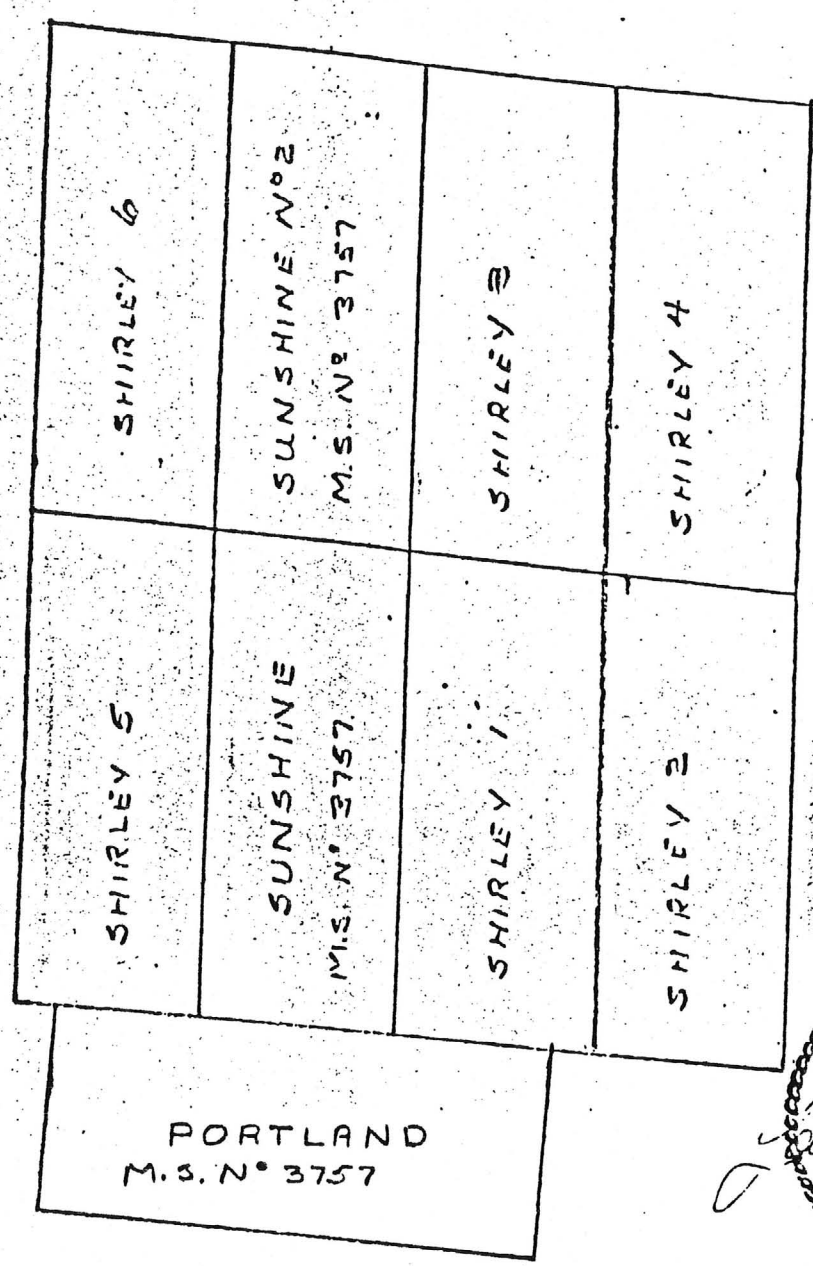
CEDAR CITY MINES LTD.

PORTLAND GOLD MINES PROPERTY

WORKINGS & SAMPLING

Scale 1"-100ft.



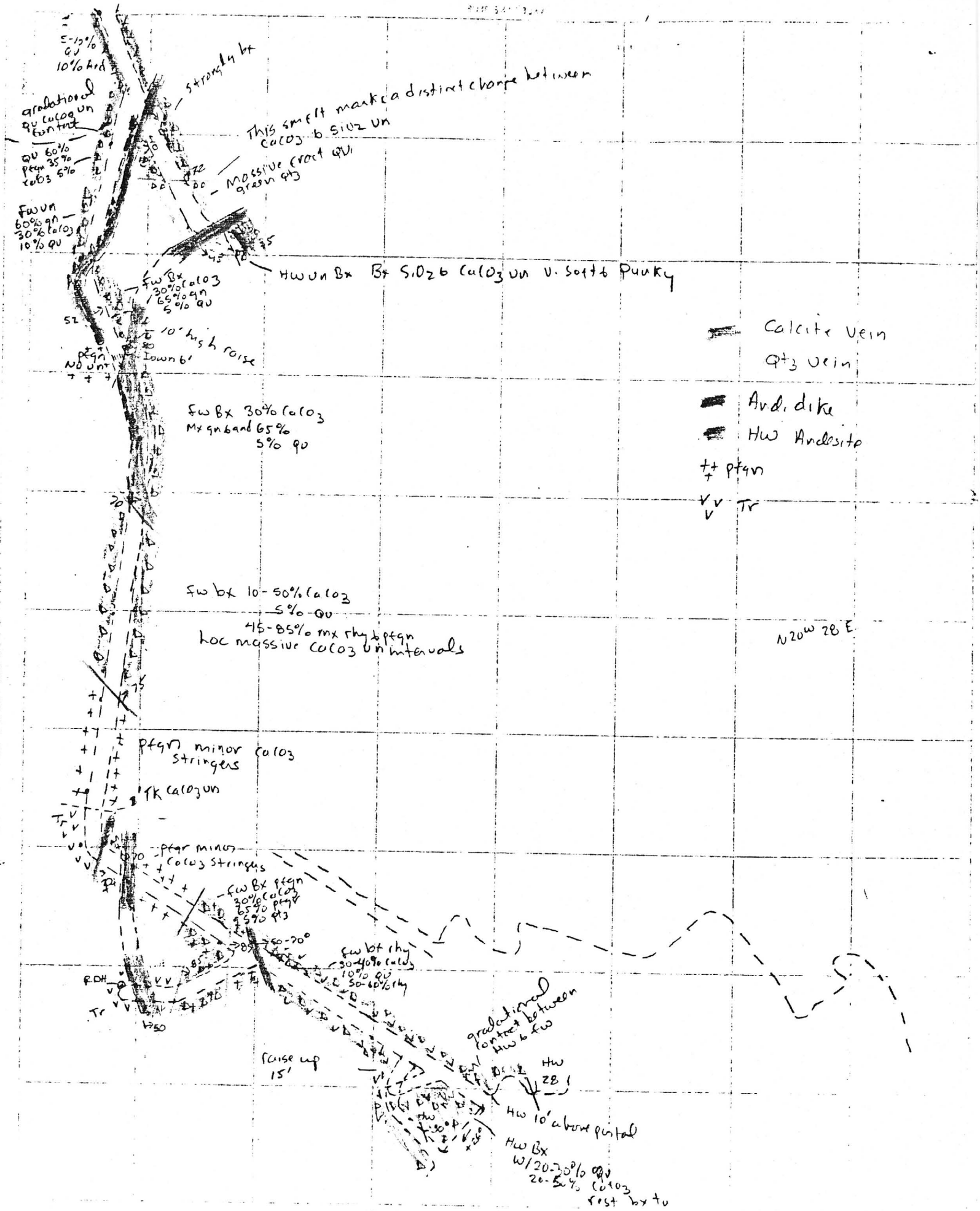
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
LAURENCE SOUKOCHOFF

T.R.TOUGH & ASSOCIATES LTD.
CEDAR CITY MINES LTD.

PORTLAND GOLD MINES PROPERTY

CLAIM MAP

Scale 1"-600ft.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CaCO3 5%
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Fw Bx
30% CaCO3
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5% QV
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down 6'
no unit
ptqn
Calcite vein
Qtz vein
Arch. dike
HW Andesite
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5% QV
Fw bx 10-50% CaCO3
5% QV
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stringers
Tk CaCO3 un
ptqn minor
CaCO3 stringers
Fw Bx ptqn
30% CaCO3
65% ptqn
5% Qtz
Fw bt rhy
30-40% CaCO3
10% QV
50-60% rhy
RDH
Tr
gradational contact between
HW & Fw
raise up
15'
HW
28
HW 10' above portal
HW Bx
w/20-30% QV
20-50% CaCO3
rest bx tu

Kingman, Arizona,
August 23, 1940

Mr. James A. Potter
Kingman, Arizona

Dear Sir:

Dr. Emil J. Rausch's report on the Portland Mine consisting of one dated July 14th and the other July 30th, 1940, is written in German and based on the samples taken and assayed by Mr. McAllister, Kingman, a copy of which is attached, and the substance of these reports is as follows:

They are addressed to the Continental Mining Corporation, New York City, and that Company is negotiating for the purchase of the property:

Under date of July 14th he states that he began his sampling on the "Little Ore Body" and worked through the "South Tunnel Body" and the "North Tunnel Body", while the sampling wasn't finished to date he did not think the average would vary much from the average shown by the listed samples already taken from the different ore bodies (5) as shown by this assay sheet, which shows an average of $7.03 for the entire mine to that date:

Under date of July 30th he states that he has just completed his sampling, having taken some 203 samples which were run by McAllister of Kingman, and summarizes his work as follows:

(a) That about 60,000 tons could be secured fom the "South Tunnel Body" by open-cut work, but he did not think the "Little Ore Body" and the "North Tunnel Body" could be mined by the open-cut method.

(b) That the ore is hard and will have to be broken with powder, but that he does not consider/any problem along that line.

(c) That Brice Covington agrees to take care of the waste and put the ore on the platform or bin for $1.00 per ton, that is, the open-cut work, and that it would cost about $1.80 per ton to mine the lower workings, with a general average of $3.00 per ton for mining and milling: That at a general average of $4.00 mill run there would be a profit of at least $1.00 per ton: That by accepting the Brice Covington offer it would not be necessary to furnish equipment: That it would take an investment of about $100,000 for the project, and that he did not think more than one third (1/3) of the mining could be done by open-cut method: That he expected to get into better ore than the present average of $5.00 or $6.00 per ton upon sinking further. That it was up to them to decide whether they wanted a mine where only 1/3 of the mining could be done by open-cut work.

These reports should be literally translated <u>by someone who understands mining terms in German.</u>

1/15/74

SCALE . 1" = 60

DON McCRA

MOHAVE COUNTY

Assays of samples taken from the Portland Mine - Little Ore Body

1.) Stope:

#1	1405	Distance	—	Zone	3 ft wide	Values	$ 4.92
#2	1391	"	5'	"	3½	"	18.43
#3	1392		5'		3	"	7.77
#4	1393	"	"		3½		5.95
#5	1394		"		3	"	6.24
#6	1395		"		5	"	5.82
#7	1396		"		2½		9.32
#8	1397		"		4		4.62
#9	1398				18	"	6.72
10	1399		"		3		3.01
11	1400				2	"	7.99
12	1401				2½		5.18
13	1402		"		4		5.47
14	1430		12		(Check on #1392)	"	7.71

2.) Footwall Cross Cut: 12.12

3.) Shaft East:

#1a	1403	"	5	"	4 ft wide	"	5.47
#2a	1410		"		4	"	7.01
#3a	1411				4		4.83
#4a	1413		"		4		15.06
#5a	1415		"		4	"	5.75
#6a	1417		"		4	"	4.70

4. Shaft West

#1b	1404		"		4	"	13.80
#2b	1409				4		8.20
#3b	1412				4	"	7.15
#4b	1414				4		7.85
#5b	1416		"		4	"	4.48
#6b	1418				4	"	4.13

Average value per ton of 27 Samples "Little Ore Body" ..... $ 7.39

Assays of Samples taken from the Portland Mine - South Tunnel Body

I.) Lower Stope - near water level:

#1a	1425	"Distance"-5'	4½	Values	$ 11.70
#2a	1427		4½		7.63
#3a	1429		4½	"	7.28
#4a	1431		4	"	13.51

2.) Upper Stope

#1b	1424	"	4	"	9.25
#2b	1426	5	4	"	5.82
#3b	1428	"	4		13.26
#4b	1432		4		7.01
#5b	1442		4	"	6.31
#6b	1443	"	4		8.95
#7b	1444		6	"	15.90
#8b	1445	"	8		10.78
#9b	1446		8	"	7.22
10b	1447	"	4½		7.78
11b	1448		4	"	8.06
12b	1449		4½		5.75
13b	1450		4½		5.12
14b	1477	"	6	"	3.37
15b	1478		4½		5.95
16b	1479		4½		4.48
17b	1480	"	4½	"	7.00

3. Ore Pile - Upper Stop lower end:

#1c 1440	Grab Sample	.....	$3.15
#2c 1441	" "	.....	4.28

Average value per ton of 23 samples "South Tunnel Body" $7.80

Assays of Samples taken from the Portland Mine - South Tunnel Body:

Tope Stope:

#1	1471	Distance	—	3-½ ft wide -		Values	$8.41
2	1472	"	5'	2-½	"	"	8.69
3	1473	"	"	5-½	"	"	8.55
4	1474	"	"	6	"	"	9.32
5	1475	"	"	6-½	"	"	7.08
6	1476	"	"	6-½	"	"	4.91
7	1494			5			3.78
8	1495			5			5.47
9	1496			5			8.55
10	1497		4-½	4-½			8.99
11	1498		"	6			7.36
12	1499	"	5	5			7.71
13	1500	"	"	5			5.82
14	1501			3-½			7.43
15	1502	"	"	4			7.36
16	1503			4-½	"	"	6.66
17	1504	"	"	4-½			7.01
18	1523			4-½	"	"	4.35
19	1524			4-½			4.77
20	1525			4			4.63
21	1526	"	"	4-½	"	"	6.87
22	1527			4			6.52
23	1548			6			4.49
24	1549	"	"	5	"	"	7.28
25	1550	"	"	12	"	"	6.73

Average value per ton of 25 Samples taken from South Tunnel Body Top Stope: ..... $ 6.75

Assays of Samples taken from the Portland Mine - North Tunnel Body:

Main Stope:

#1	1637	Distance	—	6	ft wide	Values	$ 11.91
2	1638	"	5'	6	"	"	12.48
3	1639		5	6			6.46
4	1640		5	6			10.10
5	1641		5	6			7.71
6	1642		5	6			13.38
7	1643		"	6			10.45
8	1644		"	6			6.89
9	1645		"	6			4.92
10	1646	"	"	6			6.17
11	1679	"	"	5	"	"	8.68
12	1680		"	6			5.89
13	1681		"	6			4.35
14	1682	"	"	6	"	"	4.49
15	1696	"	"	5	"	"	5.34
16	1697		"	6			5.34
17	1698		"	5			8.14
18	1699	"	"	5	"	"	10.52
19	1700		"	5			10.10
20	1701	"	"	6	"	"	9.18
21	1702		"	5			7.57
22	1703		"	4½			13.38
23	1704	"	"	5	"	"	8.90
24	1705	"	"	5	"	"	10.44

Average value per ton of 24 Samples taken from North Tunnel Body - Main Stope - ..... $ 8.45

Assays of Samples taken from the Portland Mine - Surface:

1. Face at end of Canyon - Rear Entrance to South Tunnel Body:

#1a	1572	Distance	———	7 ft.	wide	Values	$	2.74
#2a	1573	"	5'	7	"	"		16.04
#3a	1574	"	"	7	"	"		4.55
#4a	1575		"	5		"		1.97
#5a	1576		"	5				5.82
#6a	1577			5				3.92
#7a	1578			5				4.07
#8a	1579			5				4.07
#9a	1611	"	"	5	"	"		4.07
#10a	1612			5				4.48
#11a	1613			4				2.94
#12a	1614			5				2.73
#13a	1615	"	"	4	"	"		3.37

2. Footwall at End of Canyon - Rear Entrance to South Tunnel Body

#1b	1571	"	"	Cross Cut	$ 2.17

3. West End Quarry:

#1c	1604	"	5'	5	"	"	2.25
2c	1605	"	5'	5	"	"	2.67
3c	1608		"	5			2.03
4c	1609		"	5			1.54
5c	1610	"	"	5	"	"	2.38

4.) West End Quarry Footwall (not well defined)

#1d	1606	Cross Cut A	.....	$ 2.25
#2d	1607	" " B	.....	2.53

5.) North Tunnel Body - Surface:

#1e	1674	"	——	4	"	"	8.75
#2e	1675	"	10'	5	"	"	11.14
#3e	1676		10'	5	"	"	7.99
#4e	1677		10'	5	"	"	11.78
#5e	1678	"	10'	5	"	"	8.62

6.) North Tunnel Body - Surface Footwall

#1f	1673	Cross Cut	.....	3.93

Average value per ton of 27 samples taken from various parts of the surface of the Portland Mine 4.84

1.) Shaft North Side: - North Tunnel Body:

#1a	1784	Distance —	5'	4 ft. wide	Values	$ 1.83
#2a	1788	"	"	4 "	"	3.44
#3a	1791		"	5		7.99
#4a	1793		"	5		3.93
#5a	1832		"	5		5.18
#6a	1833		"	5		3.44
#7a	1835		"	5		4.44
#8a	1808		"	5		1.55
#9a	1809		"	6		3.65
10a	1810		"	6		4.28
11a	1811		"	4		7.23
12a	1812		"	5		8.42
13a	1836		"	6		5.74

2.) Shaft - South Side.

#1b	1786	"	"	5½ "	"	10.86
#2b	1787	"	"	6 "	"	12.27
#3b	1790	"	"	6 "	"	12.12
#4b	1792	"	"	6	"	10.59
#5b	1794	"	"	7 "	"	6.44

3.) Shaft Footwall (not well defined, partly vein matter)

#1c	1785	Cross Cuts		5 "	"	3.09
#2c	1789	"		5 "	"	10.79
#3c	1805	"		5 "	"	5.12
#4c	1807	"		5 "	"	1.33

4.) Shaft North Side, Red Hanging Wall
Cross cuts (7) with average of $ .04 taken but not considered in assay sheet covering the shaft section.

6.) South Tunnel (Shaft)

#1f	1803	Distance —	Zone	5 ft. wide	Value	$ 7.37
#2f	1804	"	5' "	6 "	"	7.22
#3f	1806	"	"	6		8.28
#4f	1830		"	6½		5.47
#5f	1831		"	5		5.96
#6f	1834	"	"	5 "	"	4.56

Average value per ton of 28 samples taken from North Tunnel Body Shaft Section ..... $ 6.16

FROM REPORT OF DR. EMIL RAUSCH ON THE PORTLAND MINE - DATED JULY 14, 1940.

1.	Little Ore Body - A V E R A G E	$ 7.39
2.	South Tunnel Body - Lower & Upper Stopes - dump - Average	7.80
3.	South Tunnel Body - Top Stope - Average	6.75
4.	North Tunnel Body - A V ER A G E	8.45
5.	Surface	4.84
	General average for the whole mine - according to above sampling	$ 7.03

Assays of Samples taken from the Portland Mine - South Tunnel Body:

1.) West Stope:

#1a	1712	Distance —		4½ ft. wide	Values	$ 3.71
2a	1713		5'	6 "	"	3.93
3a	1714	"	"	5 "	"	3.93
4a	1715		"	5		6.10
5a	1716		"	4½		4.77
6a	1717		"	5		3.93
7a	1718		"	4½		6.94
8a	1719		"	4½		6.94
9a	1720		"	4½		6.10
10a	1721		"	4½		5.88
11a	1722		"	4		3.86
12a	1736		"	5		6.66
13a	1737		"	4½		4.63
14a	1738		"	5		7.71
15a	1739		"	4 "	"	6.31

2.) West Stope "Footwall" (in fact; vein matter)

#1b	1729	Cross Cuts	..... "	7.02
#2b	1730	"	"	4.14
#3b	1731	"	"	3.37
#4b	1732	"		3.51
#5b	1733	"	"	3.93
#6b	1734	"	"	4.21
#7b	1735	"	"	3.30
#8b	1766	"	"	8.28
#9b	1767	"	"	4.42
10b	1768	"	"	7.65
11b	1769	"	"	4.64

3.) West Stope Pillars - (Vein matter)

#1c	1762	6' wide	"	5.19
#2c	1765	6½ "	"	3.93

4.) Lower Stope Footwall (Vein matter)

#1d	1763	irregular ~~c~~—Cross Cut	..... "	5.12
"2d	1764	" " "	..... "	5.69

5.) Check Sample

1711 - See 1571 - South Tunnel Body Surface Footwall 1.96

Average value per ton of 31 samples taken from South Tunnel Ore Body West Stope: 5.09

No. 1

CORES

	AU.	AG.
0'	.10	1.28
	.18	1.06
	.03	1.03
	.03	0.90
	.03	0.87
25'	.03	0.95
	.02	0.70
	.05	0.57
	.02	1.36
	.03	1.59
50'	.05	1.60
	.02	1.14
	.03	1.02
	.07	0.71
	.12	0.78
75'	.36	0.79
	.03	0.34
	.03	0.53
	.05	0.21
	.03	0.03
100'	.30	0.75
	.24	1.12
	.03	0.91
	.05	0.80
	.02	0.24
125'	.01	0.00

No. 2

CORES

	AU.	AG.
0'	.10	0.83
	.05	2.60
	.05	1.45
	.05	0.83
	.02	0.47
25'	.03	0.36
	.12	0.88
	.03	1.12
	.05	1.11
	.01	0.72
50'	.02	0.38
	.04	0.76
	.03	0.71
	.03	0.77
	.23	0.84
75'	.06	0.59
	.09	0.85

No. 3

CORES

	AU.	AG.
0'	.09	0.3[illegible]
	.11	0.4[illegible]
	.40	0.71
	.31	0.47
	.06	0.19
25'	.05	0.20
	.07	0.54
	.05	0.33
	.24	0.35
	0.13	1.02
50'	.04	1.09
	.05	0.[illegible]

No. 4

0'	.13	[illegible]
	.14	0.[illegible]
	.10	0.44
	.09	0.[illegible]
	.19	0.[illegible]
25'	.07	0.43
	[illegible]	.42
	.41	0.[illegible]
	[illegible]	.51
	.09	0.39
50'	.11	[illegible]
	.03	0.4[illegible]

PORTLAND MINE ASSAYS

	AU.
No. 350	.05
175	.12
170	.25
521	.02
522	.02
523	.01
524	.03
525	.02
1031	.30
1030	.67
1028	.02
1564	.34
1565	.11
1568	.17
1569	.14
1570	.19
1467	.13
1468	.06
1469	.06
1470	.08
1478	.12
1479	.11
1480	.24
1481	.17

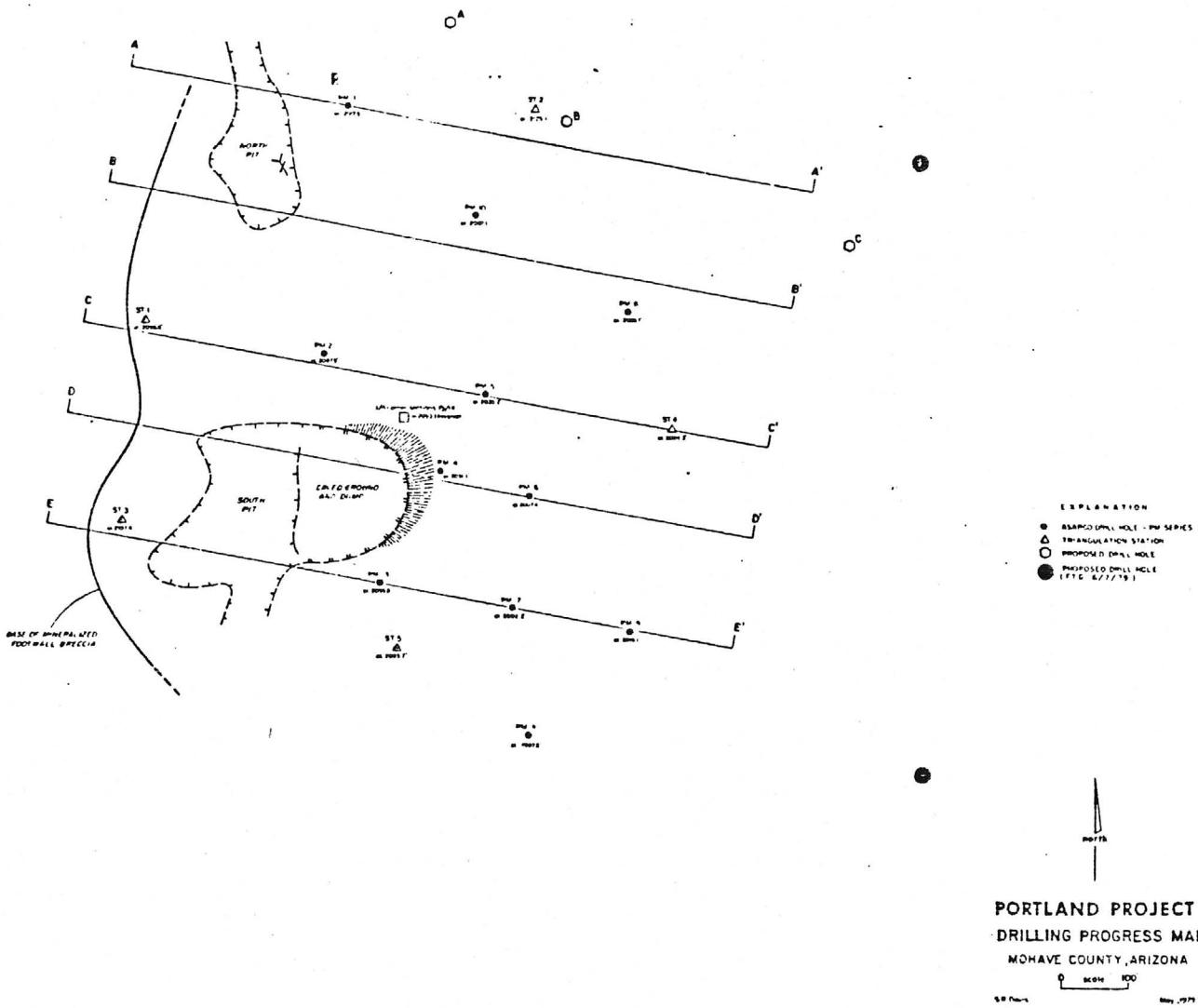
PORTLAND MINES, INC. Report of ore shipped to Gold Standard mill, Aug.13 to Aug.25, 1935.

LOT	AUG.	TONS	PORTLAND ASSAY GOLD	PORTLAND ASSAY SILVER	GOLD STD ASSAY GOLD	GOLD STD ASSAY SILVER	UMPIRE ASSAY GOLD	UMPIRE ASSAY SILVER	AVERAGE VALUE IN DOLLARS.
24	13	34.35	0.354	0.48	0.353	1.05			13.17
25	14	71.95	0.313	1.00	0.260	0.84	0.305	1.10	12.72
26	15	35.55	0.308	1.09	0.267	0.74	0.280	——	
27	20	70.75	0.464	1.76	0.427	1.50			
28	21	65.60	0.450	1.00	0.387	1.19			
29	22	75.00	0.356	1.57	0.300	1.05			
30	23	67.65	0.237	1.33	0.240	0.96			
31	24	68.15	0.254	1.00	0.226	0.77			
32	25	27.20	0.403	1.42	0.373	1.36			

516.26 | 9.319 = .35

35
35
75
165
12.21

12.72
5.16
13.65
1.42
6.60
6 | 132.36
132.3



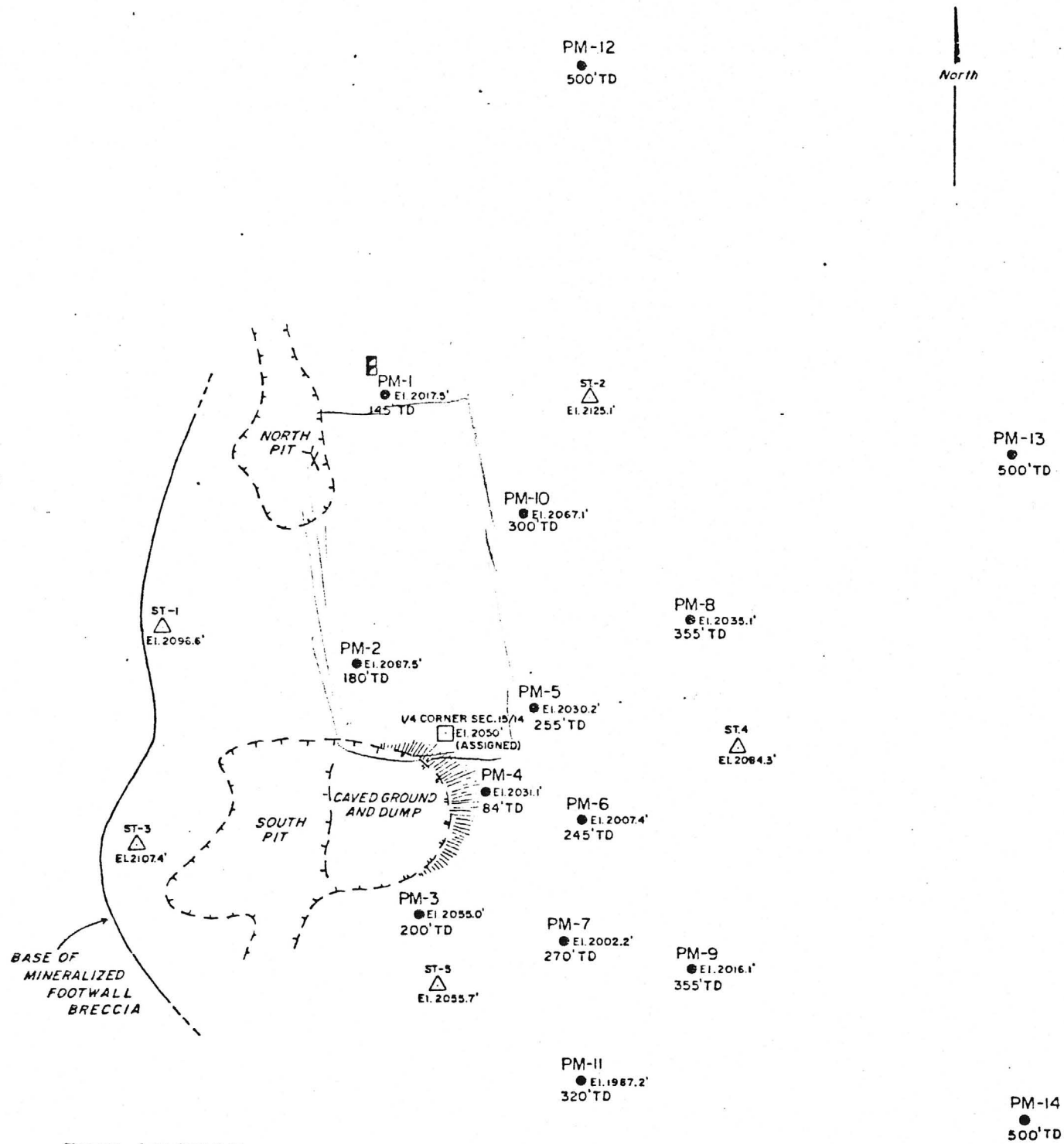
PORTLAND PROJECT

DRILLING PROGRESS MAP

MOHAVE COUNTY, ARIZONA

0 SCALE 100

TO ACCOMPANY	SUPPL.
EXPL. AUTH. REQUEST	
DATED	6-7-79
BY	F.T. GRAYBEAL



EXPLANATION

- ● ASARCO Drill Hole-PM Series
- △ Triangulation Station

TO ACCOMPANY Monthly Drilling Report
DATED Sept. 24, 1979
BY S. R. Davis

DRILLING PROGRESS MAP

PORTLAND PROJECT
MOHAVE COUNTY, ARIZONA

SCALE: 1" = 200'
0 100' 200'

Humboldt, Arizona,
Jan. 18, 1950.

Mr. Bardon, Pres.,
Shattuck Denn Mining Corp.,
New York.

Tom Newell and I, with Mr. Ray Jones, visited this property on January 13th. The general features of this mine, its past production and grade of ore have been reported on by Joe Wilcox and Jack Hamilton and will not be repeated in this letter. Enclosed is a rough map which I made from Brunton and pacing notes, and several photographs. Accurate maps were not available.

The vein consists of a sheet of metamorphosed silicified rhyolite containing abundant quartz and quartz-calcite. As observed in the south pit and in the underground workings, the vein has a smooth well defined hanging wall which shows iron stains. About 20 feet below this hanging wall, and roughly parallel to it is a basic dike, probably intruded into the structure during a reopening in the vein. Below the dike the footwall material is silicified and brecciated andesite. The metamorphism fades further from the dike, but is pronounced for as much as 40 feet. Below this the andesite is but little altered.

The adit shown at the south end of the map was the haulage level. It is caved at the face, and its course between the cave and the point at which we were able to enter it from the north face of the stope is in doubt. Apparently the portal was in the hanging wall part of the vein, it crossed into the footwall and then turned easterly across the dike. From the north face of the stope the adit trends westerly and again gets below the dike. Just north of this dike is a crosscut 50' long which ends in normal andesite. About 80 feet north of this crosscut a connection has been made to the adit run south from the north pit. This north drift is 10 feet higher in elevation, and the map gives a false impression of an offset in the dike because of the difference in elevation.

The mining in the north pit was from below the dike, which at the south end of the pit is about 30 feet higher than the pit floor. The ore removed from the underground stope was the ten feet immediatly below the hanging wall, and in no place in the stope was the dike visible, indicating that the full thickness of the upper part of the vein was not mined. The stoped areas extend several hundred feet down the dip below the adit level. Part of this stope collapsed because of inadequate pillars, making it apparently impossible to haul ore out the south adit. It is probable that about 80,000 tons came from this stope. Subsequent ore came from shovel operation in the south pit.

The silicified footwall andesite is exposed in the southwest corner of the south pit, and is well shown on the second print which also shows the dike immediatly above.

Without an accurate map it is difficult to approximate tonnage available for shovel mining. The highest point of the hill is about 90 feet above the adit level. Assuming that ten feet is average moning thickness, there may be 120,000 tons north of the stope and eastward to a point at which waste stripping becomes excessive. It is possible that with low costs of shovel mining that 20 or even 30 feet of thickness could be extracted. However, with an absence of sampling this is pure speculation. Three drill holes have been put down from a gulch just east of the hill and are said to have penetrated the dike at about 150'. If the assay results on these holes can be obtained, and if the gold content and thickness are favorable the property has some possibilities of underground mining, as there is a possibility of a considerable tonnage if values extend about 1000 feet down the dip below the stope and over the 1000 feet along the strike covered by this map.

It seems reasonable that operating margins on the grade of ore previously extracted would be very low after costs of underground mining, fine-grind milling and either amortization of plant and water and power installation or truck haul and milling costs at the producers mill with its limited capacity. I believe that the remaining tonnage available for shovel mining is too limited to justify the expense of a limited operation.

Mr. Jones advised us that he had notified Kennecott, Howe Sound and the Gould interests that the property was available for sale on the basis of $50,000 cash with $5,000 down to secure refusal of the property for 90 days with the additional $45,000 put into escrow with the deed. This is a shotgun or first come first served proposition. The Portland is certainly not without merit, and an extensive program of drilling might indicate available tonnages sufficient to justify a large enough milling operation for a profitable operation.

H.F.Mills.

Jan. 18, 1950.

Don, please make 2 copies to bring to office

RECONNAISSANCE REPORT

PORTLAND MINE

MOHAVE COUNTY, ARIZONA

[illegible]72

[illegible]

INTRODUCTION

The Portland gold property was visited at the request of Mr. Leland Wiscombe, 2704 North 19th Street, Hueytown, Alabama. Mr. Wiscombe is part owner of three patented lode claims and has optioned the remaining ownerships.)

?? D.D. must have his understood ...'s position.

The property consists of three patented claims, the Portland, Sunshine and Sunshine No. 2 (U.S. Pat. No. 3757). The principal mine, called the Golden Door, reportedly produced $200,000 in gold during 1935 to 1939. Ore was trucked to the Katherine mill about 18.2 miles to the south. The property has been idle since the Katherine mine flooded and the mill stopped operating.

LOCATION AND ACCESS

Mohave County assessor's Map 43, book 307 shows the property lies in sections 14 and 15, Township 23 N, Range 21 W, Gila and Salt River Base and Meridian.

Access from Kingman, Arizona is 26.6 miles westerly on hiwey 93 (toward Boulder Dam) thence left (southwest) 8.8 miles on the Cottonwood Wash road, thence left (south) 3.5 miles to a spring which has been fenced, thence 6.6 miles left (down the wash) to a gate in the fence, thence 0.3 miles to a little-used road which

leaves the wash on the left (east) side and thence 0.8 miles to the mine. The last 7.7 miles is down an easily traversed wash where no road is visible at times. A FWD vehicle is recommended but not really necessary for this part of the trip.

GENERAL GEOLOGY & ORE RESERVES

The area where the Portland Mine is located can be considered a continuation of the Oatman District which has been well-reported in geological literature. The mine is situated just above the extensive alluvial fans which reach from the foothills west to the Colorado River. To the east are andesite and rhyolite flows and tuffs of the same series seen at Oatman, Arizona.

Gold ore occurs in a fault breccia zone which trends generally north and dips 20 to 50 degrees east. This zone can be seen on the surface for about one-half mile and probably continues to the south under alluvial fans referred to above. The fault is probably a thrust of major proportions and can be expected to persist with depth.

Over the crest of a low hill south of the "Little Ore Body" (Dr. Emil J. Rausch's report) the vein follows a "dip-slope" in part and so is available for open pit mining. Dr. Rausch estimated 60,000 tons which averaged $6.75 per ton at $35.00 per oz. gold. This amounts to $23.60 per ton at todays price.

My assays showed that gold ore of this grade has $3.50 per ton in silver as well so that the probable grade of the open pit ore is about $27.00 per ton.

Dr. Rausch also estimated the "South Tunnel" orebody contained 200,000 tons of ore which averaged $6.14 per ton in gold which, re-calculated at todays price for gold and silver amounts to $21.49 in gold and $3.40 in silver making a total of $24.89 per ton.

Production recorded prior to October 15, 1938 amounted to 2,391.79 tons which had a value of $27,575.98. Assuming this is a gross assay value it would be worth $96,516.00 today or about $40.38 per ton gross value.

MILLING

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If the reserves estimated by Dr. Rausch can be proven by a drilling program and there is about 300,000 tons of ore having a recovered value of $23.25 in gold and $2.10 in silver, this amounts to $7,605,000 total recoverable value. A deal can be made for the Katherine mine and water which flooded it in 1939 could be used for milling this ore.

RECOMMENDATIONS

1. Make a deal for the Katherine mine, to assure a water supply for milling.

2. Drill the Portland Mine on a 50-foot grid to prove Dr. Rausch's ore reserve estimate.

3. Use drill cuttings to prove metallurgical amenability of the Portland ore to cyanidation.

4. If these steps prove successful, financing the project will be easily accomplished.

Respectfully submitted,

Dudley L. Davis

Enclosures - Assay reports
Map
Old letters

I.07

I.06

Surface, not U.G.

EXPLANATION

ROCK CHIP SAMPLES

1.13 Horizontal sample or sample w/>10' horizontal component.

0.76 Vertical sample or sample w/<10' horizontal component.

1.78 Underground sample (*values in italics*)

Main Vein Complex (projected under cover)

Footwall Breccia (projected under cover)

SILVER VALUES

+ 1.5 oz/ton

1.0 – 1.5 oz/ton

0.5 – 1.0 oz/ton

< 0.5 oz/ton

Hanging wall sample, all values ≤ 0.22 oz

Diamond Drill Hole

Rotary Drill Hole

Prospect Trench

north

surface, not U.G.

ASSAY MAP – SILVER

PORTLAND GOLD MINE

MOHAVE COUNTY, ARIZONA

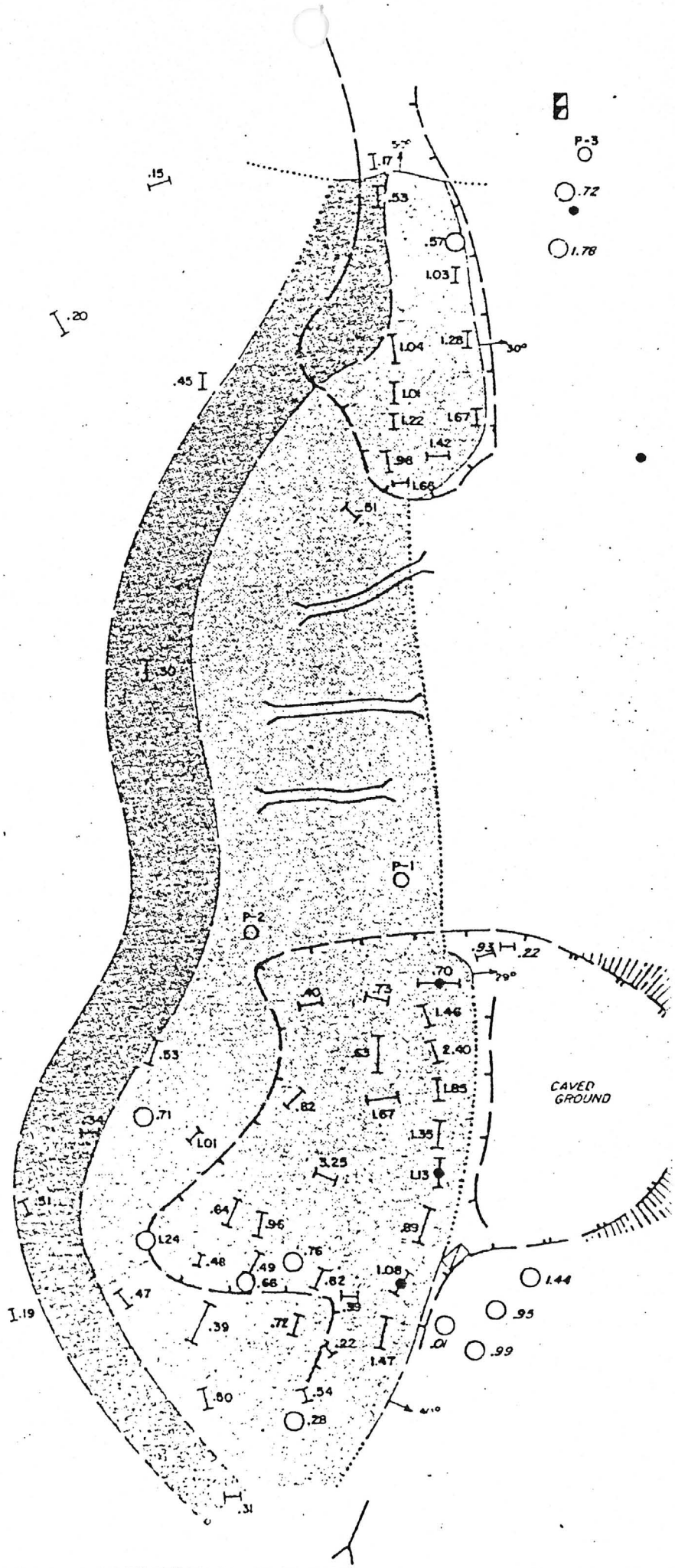
scale 1" = 100'

100'

Brunton Triangulation and Pace Control

S.R. Davis

Oct. 1976


P-3
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.73
1.46
.53
.63
2.40
1.85
CAVED GROUND
.82
1.67
.71
.34
1.01
1.35
3.25
1.13
.51
.64
.96
.89
1.24
.48
.76
.49
.68
1.08
.62
1.44
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.95
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.01
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RECONNAISSANCE REPORT

PORTLAND MINE

MOHAVE COUNTY, ARIZONA

INTRODUCTION

The Portland gold property was visited at the request of Mr. Leland Wiscombe, 2704 North 19th Street, Hueytown, Alabama. Mr. Wiscombe is part owner of three patented lode claims and has optioned the remaining ownerships.)

?? D. must have (
is understood
his position.

The property consists of three patented claims, the Portland, Sunshine and Sunshine No. 2 (U.S. Pat. No. 3757). The principal mine, called the Golden Door, reportedly produced $200,000 in gold during 1935 to 1939. Ore was trucked to the Katherine mill about 18.2 miles to the south. The property has been idle since the Katherine mine flooded and the mill stopped operating.

LOCATION AND ACCESS

Mohave County assessor's Map 43, book 307 shows the property lies in sections 14 and 15, Township 23 N, Range 21 W, Gila and Salt River Base and Meridian.

Access from Kingman, Arizona is 26.6 miles westerly on hiway 93 (toward Boulder Dam) thence left (southwest) 8.8 miles on the Cottonwood Wash road, thence left (south) 3.5 miles to a spring which has been fenced, thence 6.6 miles left (down the wash) to a gate in the fence, thence 0.3 miles to a little-used road which

leaves the wash on the left (east) side and thence 0.8 miles to the mine. The last 7.7 miles is down an easily traversed wash where no road is visible at times. A FWD vehicle is recommended but not really necessary for this part of the trip.

GENERAL GEOLOGY & ORE RESERVES

The area where the Portland Mine is located can be considered a continuation of the Oatman District which has been well-reported in geological literature. The mine is situated just above the extensive alluvial fans which reach from the foothills west to the Colorado River. To the east are andesite and rhyolite flows and tuffs of the same series seen at Oatman, Arizona.

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Respectfully submitted,

Dudley L. Davis

Enclosures - Assay reports
Map
Old letters

DEPT. MINERAL RESOURCES
RECEIVED
MAR 10 1944
PHOENIX, ARIZONA

To: J. S. Coupal

From: Elgin B. Holt

Subject: Portland Gold Mine 23N, 21W

Suggest you call Broadgate's attention to this mine

Some time ago, you and Charlie stated that Bill Broadgate had a client who was in the market for a gold mine that would supply a 400-ton mill. Later on I sopke to yourselves about the Portland gold mine, located 50 miles northwest of Kingman.

Without mincing words, the Portland is by far the best gold mine I have ever examined in Arizona, excepting Goldroad, and it can be secured on reasonable terms.

E. A. McVicar, of Kingman, represents the owners of this property and any deal should be negotiated through him. He is a reliable business man of this community and can be depended upon in every way.

I am herewith inclosing my report on Portland, mainly compiled from authentic records in McVicar's office, but partly from my own investigations, as I have inspected it a number of times.

You will note that Portland was examined during 1937 by Clyde M. Becker, a geologist of high standing, now deceased. He estimated that the mine then contained 287,000 tons of ore averaging $6.64 gold per ton.

It seems that Becker was very modest in this estimate, as Gold Standard actually mined and milled 132,000 tons averaging $7.22 gold per ton, according to this company's own assays, used as a basis for figuring royalties to owners. It is a well-known fact that Gold Standard used an adequate safety factor in reporting assays. So I would say off-hand this 132,000 tons in all probabilities contained about $8.00 gold per ton, not counting

the silver content, which seems to run around one ounce per ton in Portland ores. By cyanidation, a goodly portion of the silver values would be recovered along with the gold. Possibly the recoverable silver should at least equal 50 cents per ton, an item not to be sneezed at.

You will also note that this mine, after its abandonment by Gold Standard, was thoroughly sampled by the Continental Mining Company of New York and also by Mette & Hamron of Los Angeles; results of both samplings averaging around $7.00 gold per ton.

The main Portland vein is wide, from 12 to 20 feet in thickness and crops for 1200 feet. I would say at least half of the ore mined by Gold Standard was quarried from the outcroppings of this huge vein. The managers of this company were chloriders, and not miners. They gutted the surface croppings of a half-score of mines surrounding the Katherine mill. They were not interested in the development of any mine in this or any other area.

Roughly I would estimate that if the Portland vein could be developed by sinking an inclined working shaft on vein and then blocked out by drifts on vein at 100-foot intervals, that each 100-foot block below the present workings would yield at least 100,000 tons of ore, estimated to run around $7.00 gold per ton, with a little silver. Furthermore, deducting the 132,000 tons mined by Gold Standard from the 287,000 tons originally reported by Becker, the Portland now has indicated about 155,000 tons, averaging about $7.00 gold per ton, although this ore is not blocked out by any means, and should be considered as probable ore only. In the bottom of the "Big Stope" the vein is still at least 12 feet wide, with values holding to around $7.00 gold per ton.

Again, Portland ore is composed of quartz and [illegible] with no deleterious minerals or metals present. The gold is finely divided in the ore, in the nature of "flour" gold. Hence, this ore is amenable to treatment by cyanidation, by which 97% of the gold and 90% of the silver should be recovered as bullion. This statement is true of most of the other gold mines of that general region.

As to terms, Mr. McVicar states the Portland mine can be purchased outright for $100,000, with around $25,000 cash and the balance in term payments over a period of years, mainly payable from royalties figured at about 10% of recoverable gold and silver values. It being understood that a monthly payment, figured as advance royalties, must be paid owners in the sum of $500; same to apply on the purchase price. Under this arrangment, purchasers will not be obliged to work the mine for the duration.

While the Portland, in its present stage of development, would not warrant the erection of a 400-ton mill, it has all the earmarks of a large-tonnage mine in the making. Also, additional ore in considerable amounts could be secured from several other gold mines within a radius of 10 miles of this property.

GOLDEN DOOR & KLONDYKE MINES:

Attached hereto are two reports by McVicar, one regarding the Golden Door and the other concerning the Klondyke mine, both located near together around 10 miles north of Portland. These are potential large-tonnage gold mines, especially Golden Door, which has a record production from surface workings, per McVicar, of 20,000 tons of ore milled, averaging $8.59 gold per ton. These two mines can be secured, through McVicar, from owners on reasonable terms, by paying owners a monthly stipend; and should be worked in conjunction with Portland.

MINING & MILLING COSTS:

I would say roughly the costs of mining and milling Portland ores, using pre-war figures, should not exceed $3.50 per ton, not including taxes. Hence, estimating mill heads at $7.00, a goodly profit should be made, when and if we ever get back to "normalcy". Also, should gold be revalued upward, later on, which seems to be in the offing, profits would be increased accordingly.

If you think Broadgate would be interested in presenting these properties to his clients, I suggest you have copies made of the three reports, inclosed herewith, together with a copy of this letter, and mail the same to him. If he is then interested, he can then take these properties up direct with McVicar, whose address is: E. A. McVicar, Kingman, Arizona.

Elgin B. Holt

Elgin B. Holt,
Field Engineer.

cc - E. A. McVicar
Charles F. Willis

PORTLAND MINES

PURCHASE AGREEMENT

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PORTLAND MINES PURCHASE AGREEMENT

This Agreement is made and entered into as of the 15th day of December, 1980, by and between MONA G. POTTER of 2415 Ala Wai Boulevard, Honolulu, Hawaii 96815; LELAND M. WISCOMBE, Trustee u/t/d 8/12/74, of 6750 Hawaii Kai Drive #1005, Honolulu, Hawaii 96825; JUNE N. WISCOMBE, Trustee u/t/d 8/12/74, of 6750 Hawaii Kai Drive, #1005, Honolulu, Hawaii 96825; LA VONNE G. CLARK of 3955 Maple Tree Drive, Anaheim, California 92807; and SAMUEL L. CLARK of 3955 Maple Tree Drive, Anaheim, California 92807, all hereinafter referred to as "Sellers," and FISCHER-WATT MINING COMPANY, INC., an Arizona corporation, P.O. Box 2542, Billings, Montana 59103, hereinafter referred to as "Buyer."

WITNESSETH:

WHEREAS, Sellers are the owners of certain patented mining claims commonly known as the "PORTLAND MINES" located in Mohave County, Arizona, and more particularly described in Exhibit A annexed hereto,

AND WHEREAS, the Buyer is desirous of purchasing said patented mining claims for the purposes of mining and milling all gold, silver and other valuable minerals contained in, on, or under said property under the terms and conditions herein stated,

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and in consideration of the payments to be made hereunder and for other good and valuable consideration, it is agreed by and between the Sellers and the Buyer as follows:

1.0 TERM OF AGREEMENT

1.1 It is agreed by the parties hereto that the term of the Agreement shall run from the date first written above to the date of title delivery by Sellers to Buyer, their successors or assigns, upon full payment of the purchase price to be provided for subsequently herein, provided said purchase price shall be paid within twenty (20) years from the date hereof unless sooner terminated as hereinafter provided.

2.0 RIGHT OF BUYER

2.1 During the period of time from the commencement of this Agreement to the date said property is deeded to Buyer, unless said right is sooner terminated or abandoned, Buyer shall have the sole and exclusive right to explore for, develop, and mine by any means, any and all minerals on the property. Buyer shall also have all rights incident thereto, including the right to water, easements, and all other rights necessary or convenient to carrying on said activities.

2.2 There is reserved to Sellers the right to enter in and upon the property at their own risk, for the purpose of inspecting the workings and for verifying compliance by Buyer with the terms and conditions hereof.

3.0 PAYMENT TO SELLERS

3.1 Subject to the right of Buyer to terminate this Agreement, Buyer shall make payments on each of the following dates provided Buyer has not terminated this Agreement prior to the date for payment:

A. At the time of the execution of this Agreement, Buyer shall pay Sellers three thousand dollars ($3,000.00). Buyer will then make royalty payments to Sellers according to the following schedule, all payments including that provided in Item A to be applied to purchase price:

3/15/81 B. Three (3) calendar months from the effective date of this Agreement, Buyer shall pay to Sellers advance royalty of three thousand dollars ($3,000.00) or scheduled royalty payment, whichever is greater.

6/15/81 C. Six (6) calendar months from the effective date of this Agreement, Buyer shall pay to Sellers advance royalty of five thousand dollars ($5,000.00) or scheduled royalty payment, whichever is greater.

D. Twelve (12) calendar months from the effective date of this Agreement, Buyer shall pay to Sellers advance royalty of ten thousand dollars ($10,000.00) or scheduled royalty payment, whichever is greater.

E. Eighteen (18) calendar months from the effective date of this Agreement, Buyer shall pay to Sellers advance royalty of twenty-five thousand dollars ($25,000.00) or scheduled royalty payment, whichever is greater, excepting only that in the event the price of gold as determined by Eberhard Minerals daily selling price has averaged less than $400 per troy ounce in the preceding six (6) months, advance royalty shall be reduced to fifteen thousand dollars ($15,000.00) or scheduled royalty payment, whichever is greater.

F. Twenty-four (24) calendar months from the effective date of signing this Agreement, Buyer shall pay to Sellers advance royalty of fifty thousand dollars ($50,000.00) or scheduled royalty payment, whichever is greater, excepting only that in the event the price of gold has averaged less than $400 per troy ounce in the preceding twelve (12) months, advance royalty shall be reduced to twenty-five thousand dollars ($25,000.00), or scheduled royalty payment, whichever is greater.

G. Thirty-six (36) calendar months from the effective date of the signing of this Agreement, and on or before this same annual date in each and every succeeding year that this Agreement is in effect, Buyer shall pay to Sellers advance royalty of $50,000 or scheduled royalty payment exactly as per Item F foregoing, including specified reduction in advance royalty to $25,000 if the price of gold has averaged less than $400 per troy ounce in the preceding twelve (12) months, or scheduled royalty payment if greater.

3.2 ROYALTIES on production shall be paid on net smelter returns from metal values from the Portland ore according to the following schedule:

0 - $50/ton	5% net smelter returns
$50 - $100/ton	6% net smelter returns
$100 - $150/ton	7% net smelter returns
$150/ton and up	7-1/2% net smelter returns

Net smelter return shall be calculated from the gross values of the recovered gold and silver minus the refining costs. These royalty payments shall continue to be paid to the Sellers as long as the property is in production or until the total purchase price has been paid.

4.0 PRICE

4.1 The total purchase price of the Portland Mines properties is two million dollars ($2,000,000.00). Upon completion of payments amounting to the total purchase price, the Buyer shall be entitled to delivery of a mining deed, in a form satisfactory to Buyer, conveying all of the property described in Exhibit A to Buyer.

5.0 DEFAULT IN PAYMENTS

5.1 Default for conditions other than payments is covered in Article 15.0 of this Agreement.

5.2 Failure of Buyer to make payments to Sellers as specified in Article 3.0, PAYMENTS TO SELLERS, shall be considered a matter of default, with or without notice from Sellers.

5.3 In the event Buyer fails to make any payment, as herein provided, within five (5) days after such payment becomes due, Sellers shall provide Buyer with a sixty (60)-day notice in writing.

5.4 In the event Buyer fails to remedy any default for payments within the time named in such sixty-day notice, this contract shall at the option of the Sellers, notice of the exercise of which option shall be given in writing, be null and void. All

payments theretofore made by the Buyer to Sellers shall be forfeited upon such termination, and Buyer and Sellers shall be without further remedy hereunder, except that Sellers may recover any royalty payments due but not yet paid.

5.5 It is further agreed that in the event of Buyer's failure to remedy default of payments within such sixty-day period, it shall be lawful for Sellers with or without process of law to enter upon and take possession of such premises. All improvements, equipment, machinery and mills installed upon such property shall not be removed by Buyer until all liabilities of Buyer are paid, including bills for labor, materials, taxes, or other obligations which are, or might become, a lien against the property.

6.0 EXCUSEABLE DELAYS

6.1 If the performance of the Agreement or any obligation hereunder, except the making of payments for production hereunder, is prevented, restricted, or interfered with by any law, order, proclamation, regulation, ordinance, demand, or requirement of any governmental agency, Buyer shall be excused from such performance to the extent of such restriction or interference; provided, however, that Buyer shall take all reasonable steps to avoid or remove such causes of nonperformance. In the event of such excuseable delay, it is mutually agreed that the performance of this Agreement shall be extended for a period of time equivalent to said delay.

7.0 CARE IN OPERATION

7.1 Buyer agrees to operate said premises in a minerlike fashion and use best efforts in milling, with consideration of the economics involved.

8.0 STOCK PILING MATERIAL

8.1 Buyer shall be permitted to stockpile minerals from the premises for up to six months without having to pay a royalty thereon. On any material stockpiled longer than six months, Buyer shall pay to Sellers an estimated net smelter return based on estimated recovery of minerals from the stockpiled material. At such time as said stockpiled materials are finally processed, an appropriate debit or credit will be made based on the variance.

9.0 COST AND COMPLIANCE WITH LAWS

9.1 All work and improvements performed or made on said premises by virtue of this Agreement, including buildings, machinery, and equipment placed thereon by Buyer shall be at Buyer's own cost and expense.

9.2 Buyer agrees to conduct mining operations in accordance with and in full compliance with the laws of the State of Arizona and of the United States of America and with the rules of the Arizona State Mine Inspector.

10.0 ADDITIONAL CLAIMS

10.1 If upon development of said property it is found advisable in the sole discretion of the Buyer to secure additional ground by staking, such claims located by Buyer which are within one (1) mile of said property while this Agreement is in effect, shall be included within and covered by this contract without change of payment terms or purchase price.

10.2 Buyer shall do or cause to be done at Buyer's own cost and expense all location work and filings required to locate any such additional claims.

10.3 On or before August 31 of each year during the life of this Agreement, Buyer agrees to perform or cause to be performed as by law provided, the annual work on any unpatented mining claims developed by Buyer in connection with the mining claims developed by Buyer in connection with the mining of the Portland properties, and agrees to record with the County Recorder of Mohave County, Arizona, as by law provided, proof of such labor on or before December 31 of each year. Buyer shall present proof of such filing to Seller's Agent no later than December 31 of each year.

11.0 TAXES AND INSURANCE

11.1 Buyer agrees to pay before delinquency all real, personal property and production taxes levied or assessed against said property or any production therefrom subsequent to the date of this Agreement.

11.2 Buyer further agrees at all times hereunder to carry or cause to be carried Workmen's Compensation Insurance in accordance with the requirements of the laws of the State of Arizona and of the United States and to make any and all deductions required under the Federal Social Security Act, it being expressly understood and agreed that Sellers and their interest in the premises as aforesaid shall not be liable for or subject to any claims or liabilities resulting from any obligations of the Buyer.

11.3 Buyer further agrees to obtain or cause to be obtained at its own expense and keep in force during the entire life of this Agreement liability insurance covering all of its operations at the Portland Mines from a company licensed to do business in the State of Arizona, in an amount not less than $500,000/$2,000,000. Certificates of said policy shall be furnished to the Sellers' Agent.

12.0 BUYER TO HOLD SELLERS HARMLESS

12.1 Buyer shall hold Sellers harmless and fully indemnify Sellers against all claims and demands of every character and nature which may be made upon Sellers or against the property for or on account of any debts or expenses contracted or incurred by Buyer, as well as from and against any and all acts, transactions or omissions by Buyer, its agents and servants, including all claims, demands, causes of action, costs and expenses arising during the continuance of this Agreement, from or on account of any injuries to any person, or the property to any person or corporation whether occasioned by any unsafe or dangerous condition of the property or any workings therein or thereon used by the Buyer, or otherwise, and to defend the Sellers at the cost and expense of the Buyer, from any such liability or asserted liability.

13.0 DEBTS AND LIENS

13.1 Buyer agrees to save said property harmless from any and all debts, liens and other encumbrances arising, or which may arise, through any operation of said property under this Agreement.

13.2 Buyer further agrees to keep posted any and all non-liability notices provided by Sellers and as provided by law for the protection of the Sellers and their interest.

14.0 MACHINERY

14.1 Upon termination of this Agreement for any reason, provided that payments owing theretofore have been fully paid, Buyer shall have six (6) months within which to remove all machinery, tools and equipment placed upon said property by Buyer, save and except headframes, timbering and permanent buildings.

14.2 It is agreed that upon expiration of said six-month period, any and all machinery, tools and equipment which shall not have been removed by Buyer shall become and remain the property of the Sellers as fixtures to and in connection with said premises.

15.0 DEFAULT

15.1 Default for Conditions Other Than Payments

Failure of Buyer to pay any amounts due is covered by Article 5, DEFAULT IN PAYMENTS. In the event Buyer fails to perform any of the other covenants or agreements herein contained at the time and in the manner herein set forth, then in such event Sellers shall give Buyer sixty (60) days' notice in writing to remedy such default or defaults.

15.2 In the event Buyer shall fail to remedy or contest the default or defaults set forth in any such sixty-day notice, provided in Article 13.1, this contract shall at the option of the Sellers, notice of which option shall be given by Sellers to Buyer in writing, terminate and become null and void, any and all payments made theretofore by the Buyer to Sellers hereunder shall be forfeited as liquidated damages. The Buyer and Sellers shall be without further remedy hereunder, except that Sellers may recover any royalty payments due but not yet paid.

15.3 It is further agreed that in any such event it shall be lawful for Sellers, with or without process of law, to enter upon and take possession of such premises; and in such case the Buyer agrees to surrender, yield and deliver to Sellers, their heirs, executors, administrators, successors and assigns, or any of them, quiet and peaceful possession of and to said premises. All improvements, equipment, machinery and mills installed on the property shall not be removed until all liabilities of Buyer are paid including bills of labor, materials, taxes, or for other obligations which may become a lien on the property.

16.0 REPORTS

16.1 While this agreement is in effect, Buyer shall make available for inspection by the Sellers or their Agent at reasonable times factual data from geological reports, drill hole assays and reports, assay maps and mill reports pertaining to the ore from the Sellers' property, and smelter reports for same. Copies of the smelter reports for the preceding period shall be delivered to the Sellers with each royalty payment.

17.0 ARBITRATION

17.1 For the purpose of avoiding any litigation under this contract, it is mutually agreed that in the event of any dispute or any misunderstanding concerning this contract or other question or dispute arising through the operation of said property under this contract, but not including payments, the parties hereto mutually agree to forthwith refer any and all such questions to a board of three (3) arbitrators to be selected in the usual manner, to wit: One arbitrator to be selected by Buyer and one arbitrator to be selected by Sellers; the two arbitrators so selected shall then select an umpire who shall be the third arbitrator of such board. The majority shall control.

17.2 Any question in dispute, as aforesaid, shall be submitted to said arbitrators in writing, and any decision rendered shall be final and binding upon the parties hereto. If the arbitrators' decision finds Buyer in default hereunder, Buyer shall have a reasonable time from the date of receipt of notice of such decision to cure such default and thus avoid termination by Sellers under Paragraph 14.2 hereof.

17.3 Each of the parties hereto shall pay its own arbitrator and said third arbitrator shall be paid by the party hereto losing any such arbitrated dispute.

17.4 The parties hereto authorize the use of an escrow agent to be mutually agreed upon, to hold any and all papers, funds and documents in connection therewith until such time as any dispute between the parties shall have been adjusted by compromise or judicial proceedings. The cost of such escrow shall be borne equally by the parties hereto.

18.0 TERMINATION

18.1 The Buyer is given and granted the right to terminate this Agreement and to be relieved of any and all further obligation, responsibility and liability created hereby at any time during the term hereof. Termination shall be made by giving written notice thereof to the Sellers' Agent. Buyer shall thereafter surrender the property to the Sellers and pay to the Sellers any payments due and owing at the date of surrender of the claims by the Buyer, and deliver to the Sellers a recordable instrument of surrender.

19.0 ASSIGNMENT

19.1 This Agreement may not be assigned in whole or in part without the prior written consent of the Sellers. Such consent shall not be arbitrarily withheld without just cause. Provided, however, that consent is hereby given in advance for assignment in whole or in part of this Agreement from Fischer-Watt Mining Company to Fischer-Watt McCracken Partnership and to CNR Resources, Inc.

20.0 NOTICES AND PAYMENTS

20.1 Any notices required to be sent or given pursuant hereto shall be by registered or certified mail, if to Sellers to their Agent as follows:

S. L. Clark
3955 Maple Tree Drive
Anaheim, California 92807

And if to Buyer, to its Agent as follows:

W. Perry Durning
Exploration Manager
Fischer-Watt Mining Co., Inc.
114 Tucker, Suite 2
Kingman, Arizona 86401

and

Fischer-Watt Mining Company
P.O. Box 2542
2929 3rd Avenue North
Billings, Montana 59103

Attention: Mr. Carl Fischer,
President

and

Meserve, Mumper & Hughes
333 South Hope Street, 35th Floor
Los Angeles, California 90071

Attention: William E. Eick

20.2 Notice of change of address shall be given promptly by either party.

20.3 It is mutually agreed that a financial institution shall be appointed Escrow Agent under this contract and in behalf of all the parties hereto, and that all payments hereunder shall be made to said financial institution to the credit of the Sellers. Buyer shall not be responsible for division of any payments among the Sellers. Costs of escrow shall be shared equally by Buyer and Sellers.

21.0 EVIDENCE OF TITLE

21.1 Whenever requested so to do by the Buyer, the Sellers shall at their expense furnish to the Buyer a complete Abstract of Title. At the election of Sellers, the cost of said Abstract of Title shall be paid by the Buyer and deducted from the next payment payable hereunder. The Buyer shall have a reasonable time within which to examine said Abstract, and if said examination reveals defects in the title to said property, Sellers upon written request of Buyer shall proceed to cure said title defects to the end that marketable title, free and clear of liens and encumbrances, subject to paramount title of U.S. Government, is vested in Sellers. In the event that within sixty (60) days after said written notice, Sellers shall fail to commence the correction of said title defects, or if they shall fail to dilligently prosecute such correction by court action or otherwise, Buyer may proceed to cure said title defects and may deduct the expense therof from the purchase price of said property.

22.0 DEED IN ESCROW

22.1 Upon written request of Buyer made at any time after evidence of title has been furnished by Sellers as provided in Paragraph 21.1 hereof, the Sellers will make, execute and acknowledge a good and sufficient mining deed conveying the above-

described property to the Buyer free and clear of encumbrances, and will place the same in escrow together with a copy of this Agreement, and escrow instructions in a form approved by the Buyer for the delivery of said deed to the Buyer upon final payment of the purchase price specified in Paragraph 4.0 hereof.

23.0 MEMORANDUM OF AGREEMENT

23.1 The Sellers agree, whenever requested to do so by the Buyer, to execute, acknowledge, and deliver a memorandum of this Agreement, and the Buyer may record said memorandum in the County in which the claims herein described are located.

24.0 AGREEMENT BINDING UPON SUCCESSORS

24.1 This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed the day and year first above written.

BUYER:

FISCHER-WATT MINING COMPANY, INC.

BY _____
CARL E. FISCHER, President

SELLERS:

_____
MONA G. POTTER

_____
LELAND M. WISCOMBE
Trustee U/T/D 8/12/74

_____
JUNE N. WISCOMBE
Trustee U/T/D 8/12/74

_____
SAMUEL L. CLARK

_____
LA VONNE G. CLARK

EXHIBIT A

To the Agreement between MONA G. POTTER, LELAND M. WISCOMBE, JUNE N. WISCOMBE, LA VONNE G. CLARK, and SAMUEL L. CLARK; and FISCHER-WATT MINING COMPANY, INC.

Three patented lode claims, all located in the Weaver Mining District, Mohave County, Arizona.

PATENTED CLAIMS

Name of Claim	Mineral Survey	Patent Number	Assessor's Map	Assessor's Book
Portland	3757	909600	43	307
Sunshine	3757	909600	43	307
Sunshine No. 2	3757	909600	43	307

Au Ag

.122 1.35 Port 36 → next to H-4 (=.198) - 6.2' - goes deeper, mass. wh. c.c., locally coarse grained - bx frags silic - wh wkr < 5% qtz

.292 1.8 Port 37 → in decline E. of N. pit - @ H-10 (.26) - not located prop. on map. 6' wide smpl. not to h.w. or f.w. (3' from h.w. - f.w. buried). Att.: N25°E, Dip = 32°E
Smpl = 70% c.c. - 20% qtz, 10% host (appears 15-15 qtz-host)

.444 1.4 Port 38 → 5' wide smpl. 90% c.c. - 10% Qtz - in dog hole to N. in decline E. of N. Pit Att.: N15°W - 30°E

.005 .05 Port 39 → next to H-9 → .33 5' wide smpl. - 70% c.c. - 10% qtz + silic bx frags - vn. locally bxed - little hem., from h.w. down - f.w. not exposed
Att.: N5°W, 18°E (very undulating contact w/ h.w.)

.021 .10 Port 40 → 3.5' high - FACE drift - clay c.c. alt. wallrock.
massive wh-brn cc in pods/walls slick - N75°E - 52°SE - normal
here host is highly altered intrusive (?)
Major fault 15' from face: N40°E (-50°), 65°SE. - here porphyritic dike (latite) 2-2½' wide - gouge (hem stain) on hwt f.w. maj. structure. - intrusive in f.w., in h.w. bxed intr. w/ vein bx. General fault contact w/ vein / intrusive.
If fault is normal, vein is @ surface to W. or eroded.

.052 .75 Port 41 - decline from N. Pit - 5.7' high - vein goes another 2' higher - bottom not seen - Massive pink-wh-qtz-c.c.. Top ½ is >75% qtz - bottom mostly cc.

Bisbee, Arizona

December 30, 1949

Mr. Thomas Hardon

Portland Mine

You wrote me about the Portland mine near Kingman, Arizona. I contacted a Mr. Payne, whom I know, and who had worked at the Producers' Mill not far from the Portland. He gave a very good report on the property; so I called Mr. R. P. Jones to whom you referred in your letters. I arranged for a visit to the property and was accompanied by Mr. Jones and Mr. Phil Morse. Mr. Jones is very talkative and somewhat on the high-pressure type. However, I found the property to be as they described it. All maps and records were in California and they promised to get these for our inspection.

I believe this mine has some excellent possibilities if properly equipped and mined on a basis of not less than 1,000 tons per day. Milling should be done at the mine.

Mr. Jones has two other properties in the same range of mountains which he declares are equal to, or better, than the Portland owned by Mr. Potter. They are stock companies and will relinquish 60% of the stock for finance money sufficient to place the mine in operation and build a cyanide mill. All these properties are reported to have large tonnages with grades of ore equal to those of the Portland.

Perhaps I have been oversold by the things I saw, but I believe the property warrants further examination. I suggest that Mr. Newell and Mr. Hamilton look the property over and that Mr. Hamilton investigate the metallurgical results obtained on the 132,000 tons milled at the Producers' Mill and at the Catherine Mill.

Herewith you will find my report on the Portland Mine.

J. A. Wilcox

J. A. Wilcox,
Manager

JAW/c
Encls.

THE PORTLAND MINE

KINGMAN, ARIZONA

The Portland Mine in the San Francisco Mining District of Arizona was visited on December 18th. I was accompanied by Mr. R. P. Jones, and Mr. Phil Morse, both of Kingman, Arizona.

LOCATION

The Portland Mine is located in Mohave County, Arizona, 46 miles Northeast of Kingman by road. Twenty-five miles is on Highway 93 to Hoover Dam and 19 miles over a graded county road that is high gear nearly all the way. The Mine site is 4 miles from the Colorado River and will be on the Lake-side of the Lake formed by Davis Dam when completed next year. The mine is at an elevation of 1,400 feet and will be 800 feet above Davis Dam Lake. There is a power line 12 miles distant. Davis Dam and the town of Bull Head, Nevada, will be 12 miles distant.

CLIMATE

The climate is very arid and practically free of snow in the winter. The summers are hot with a minimum of rainfall. Roads are seldom closed by storms.

GEOLOGY

The range of mountains in which the mine is located parallels the Colorado River and is called the River Range. Several big mines are in this range; the Gold Roads, United Eastern, and Gold Standard. The range was built by volcanism in the Tertiary age and is composed of Rhyolites and Andesite intrusions with later Kalapoia Coverings. Ore occurrences are predominately in Metamorphosed Calcite beds which have become highly silicified. Gold and silver are the only metals to be found and they occur in almost microscopic particles disseminated through quartz.

GEOLOGY (Continued)

The metal bearing structure consists of two parallel veins, one about 20 feet thick and the other about 100 feet thick. The separating horse of waste is from 5 to 10 feet wide. The veins dip to the east at 27° and outcrops across a ridge for 2500 feet. A third vein of 5 foot thickness runs at right angles to the other across the south of the property and it dips to the North at about 40°. The ore is very sicilicious and dense and has a greenish cast.

PRESENT DEVELOPMENT

The mine was developed by a hundred foot shaft which is inaccessable. A tunnel on the surface level runs through the ridge for 900 feet. From this area a considerable tonnage was mined by room and pillar methods. All the ore was mined from the upper or 20 foot vein. No ore was mined from the thicker vein. Part of the tonnage mined was from the surface with shovels and trucks. It is reported that 132,000 tons were extracted and trucked, to the Catherine and Producers Mills, both some 17 miles distant.

Many samples from the thicker veins are reported to indicate equal values with those obtained in mining the thinner vein. The average recovered value reported to me on the 132,000 tons was $7.94 per ton. Closure of the mine was forced by the embargoes placed on gold mines in 1942. Mining was done by antiquated methods and on much too small a scale for the grade of the ore and in view of the large tonnage available. There is no equipment of value on the property.

The owners report 500,000 tons of ore available above the present truck loading deck, and another 500,000 tons down to 100 feet below ground. These figures seem to be fair estimates provided exploration work verified the reported values in the thicker vein.

NEEDED EXPLORATION

Verification of reported tonnage and grade would require about ten drill holes approximately 200 feet deep, and some test runs on ore from outcrops and old dumps. The records of past shipments would be valuable information for comparative

purposes. Shattuck Denn owns all the equipment necessary for drilling and drifting.

MINING METHODS

The first 500,000 tons can be mined with shovels and trucks. Drilling could be by churn drill and it appears secondary blasting will be required. Very little stripping will be required to this depth. During the mining of the surface ore a shaft could be sunk to a depth determined by drilling, and the deeper part of the ore body mined by Room and Pillar methods. I believe mining should be carried on at the rate of 1,000 tons or more, per day.

MILLING

It seems that milling at the mine site is essential. This would require the erection of a 1,000 ton cyanide mill. Water would have to be pumped 4 miles against an 800 foot head from the Colorado River. Power is available 12 miles away. Perhaps the mills at Gold Roads and Producers could be bought and moved. The ore must be finely ground (80%-200 mesh) for good recoveries. The Producers' Mill is reported to have made better than a 95% recovery.

TERMS

The terms are those quoted in your letter of December 2nd. Mr. Jones assured me that titles are clear and there are no liens involved. He stated a period of exploration without cost could be arranged.

ESTIMATED MINING & MILLING COSTS

Mining	150
Milling	175
Marketing	25
Exploration & Development	100
	450
Reported Values	794
Net Earnings	344

CONCLUSION

I feel that this property merits further examination and a more thorough study of mining and milling procedures and costs be made.

J. A. Wilcox

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Kingman, Arizona,
August 23, 1940

Mr. James A. Potter
Kingman, Arizona

Dear Sir:

Dr. Emil J. Rausch's report on the Portland Mine consisting of one dated July 14th and the other July 30th, 1940, is written in German and based on the samples taken and assayed by Mr. McAllister, Kingman, a copy of which is attached, and the substance of these reports is as follows:

They are addressed to the Continental Mining Corporation, New York City, and that Company is negotiating for the purchase of the property:

Under date of July 14th he states that he began his sampling on the "Little Ore Body" and worked through the "South Tunnel Body" and the "North Tunnel Body", while the sampling wasn't finished to date he did not think the average would vary much from the average shown by the listed samples already taken from the different ore bodies (5) as shown by this assay sheet, which shows an average of $7.03 for the entire mine to that date:

Under date of July 30th he states that he has just completed his sampling, having taken some 203 samples which were run by McAllister of Kingman, and summarizes his work as follows:

(a) That about 60,000 tons could be secured from the "South Tunnel Body" by open-cut work, but he did not think the "Little Ore Body" and the "North Tunnel Body" could be mined by the open-cut method.

(b) That the ore is hard and will have to be broken with powder, but that he does not consider/ the problem along that line.

(c) That Brice Covington agrees to take care of the waste and put the ore on the platform or bin for $1.00 per ton, that is, the open-cut work, and that it would cost about $1.80 per ton to mine the lower workings, with a general average of $3.00 per ton for mining and milling: That at a general average of $4.00 mill run there would be a profit of at least $1.00 per ton: That by accepting the Brice Covington offer it would not be necessary to furnish equipment: That it would take an investment of about $100,000 for the project, and that he did not think more than one third (1/3) of the mining could be done by open-cut method: That he expected to get into better ore than the present average of $5.00 or $6.00 per ton upon sinking further. That it was up to them to decide whether they wanted a mine where only 1/3 of the mining could be done by open-cut work.

These reports should be literally translated <u>by someone who understands mining terms in German.</u>

SUNSHINE Nº 2
M.S. Nº 3757
BETTER LUCK NO. 1
M.S. No. 3757
GOOD LUCK
M.S. No. 3757
SUNSHINE
M.S. Nº 3757
BETTER LUCK
M.S. No. 3757
PORTLAND
M.S. Nº 3757
PORTLAND NO. 2
M.S. No. 3757
MONUMENT
DISCOVERY SHAFT
DIRECT
DISCOVERY SHAFT
SCALE · 1" = 60
DON McCRA
MOHAVE COUNTY
1/15/74

3500 oz

Assays of samples taken from the Portland Mine - Little Ore Body

1.) Stope:

#1	1405	Distance	—	Zone	3 ft wide	Values	$ 4.92
#2	1391	"	5'	"	3½	"	18.43
#3	1392		5'		3	"	7.77
#4	1393	"	"		3½		5.95
#5	1394		"		3	"	6.24
#6	1395		"		5	"	5.82
#7	1396		"		2½		9.32
#8	1397		"		4		4.62
#9	1398				18	"	6.72
10	1399		"		3		3.01
11	1400				2	"	7.99
12	1401				2½		5.18
13	1402		"		1½		5.47
14	1430		12		(Check on #1392)	"	7.71

2.) Footwall Cross Cut: 12.12

3.) Shaft East:

#1a	1403	"	5	"	4 ft wide	"	5.47
#2a	1410		"		4	"	7.01
#3a	1411				4		4.83
#4a	1413		"		4		15.06
#5a	1415		"		4	"	5.75
#6a	1417		"		4	"	4.70

4. Shaft West

#1b	1404		"		4	"	13.80
#2b	1409				4		8.20
#3b	1412				4	"	7.15
#4b	1414				4		7.85
#5b	1416		"		4	"	4.48
#6b	1418				4	"	4.13

Average value per ton of 27 Samples "Little Ore Body" ..... $ 7.39

Assays of Samples taken from the Portland Mine - South Tunnel Body

I.) Lower Stope - near water level:

#1a	1425	"Distance"-5'	4½	Values	$ 11.70
#2a	1427		4½		7.63
#3a	1429		4½	"	7.28
#4a	1431		4	"	13.51

2.) Upper Stope

#1b	1424	"	4	"	9.25
#2b	1426	5	4	"	5.82
#3b	1428	"	4		13.26
#4b	1432		4		7.01
#5b	1442		4	"	6.31
#6b	1443	"	4		8.95
#7b	1444		6	"	15.90
#8b	1445	"	8		10.78
#9b	1446		8	"	7.22
10b	1447	"	4½		7.78
11b	1448		4	"	8.06
12b	1449		4½		5.75
13b	1450		4½		5.12
14b	1477	"	6	"	3.37
15b	1478		4½		5.95
16b	1479		4½		4.48
17b	1480	"	4½	"	7.00

3. Ore Pile - Upper Sto[illegible] lower end:

#1c	1440	Grab Sample	$3.15
#2c	1441	" "	4.28

Average value per ton of 23 samples "South Tunnel Body" $7.80

Assays of Samples taken from the Portland Mine - South Tunnel Body:

Tope Stope:

#1	1471	Distance	—	3-½	ft wide -	Values	$8.41
2	1472	"	5'	2-½	"	"	8.69
3	1473	"	"	5-½	"	"	8.55
4	1474	"	"	6	"	"	9.32
5	1475	"	"	6-½	"	"	7.08
6	1476	"	"	6-½	"	"	4.91
7	1494			5			3.78
8	1495			5			5.47
9	1496			5			8.55
10	1497		4-½	4-½			8.99
11	1498		"	6			7.36
12	1499	"	5	5			7.71
13	1500	"	"	5			5.82
14	1501			3-½			7.43
15	1502	"	"	4			7.36
16	1503			4-½	"	"	6.66
17	1504	"	"	4-½			7.01
18	1523			4-½	"	"	4.35
19	1524			4-½			4.77
20	1525			4			4.63
21	1526	"	"	4-½	"	"	6.87
22	1527			4			6.52
23	1548			6			4.49
24	1549	"	"	5	"	"	7.28
25	1550	"	"	12	"	"	6.73

Average value per ton of 25 Samples taken from South Tunnel Body Top Stope: ..... $ 6.75

Assays of Samples taken from the Portland Mine - North Tunnel Body:

Main Stope:

		Distance			ft wide	Values	
#1	1637	"	5'	6	"	"	$ 11.91
2	1638		5	6			12.48
3	1639		5	6			6.46
4	1640		5	6			10.10
5	1641		5	6			7.71
6	1642		5	6			13.38
7	1643		"	6			10.45
8	1644		"	6			6.89
9	1645		"	6			4.92
10	1646	"	"	6			6.17
11	1679	"	"	5	"	"	8.68
12	1680		"	6			5.89
13	1681		"	6			4.35
14	1682	"	"	6	"	"	4.49
15	1696	"	"	5	"	"	5.34
16	1697		"	6			5.34
17	1698		"	5			8.14
18	1699	"	"	5	"	"	10.52
19	1700		"	5			10.10
20	1701	"	"	6	"	"	9.18
21	1702		"	5			7.57
22	1703		"	4½			13.38
23	1704	"	"	5	"	"	8.90
24	1705	"	"	5	"	"	10.44

Average value per ton of 24 Samples taken from North Tunnel Body - Main Stope - ..... $ 8.45

Assays of Samples taken from the Portland Mine - Surface:

1. Face at end of Canyon - Rear Entrance to South Tunnel Body:

#1a	1572	Distance	———	7 ft.	wide	Values	$ 2.74
#2a	1573	"	5'	7	"	"	16.04
#3a	1574	"	"	7	"	"	4.55
#4a	1575		"	5		"	1.97
#5a	1576		"	5			5.82
#6a	1577			5			3.92
#7a	1578			5			4.07
#8a	1579			5			4.07
#9a	1611	"	"	5	"	"	4.07
#10a	1612			5			4.48
#11a	1613			4			2.94
#12a	1614			5			2.73
#13a	1615	"	"	4	"	"	3.37

2. Footwall at End of Canyon - Rear Entrance to South Tunnel Body

#1b	1571	"	"	Cross Cut	$ 2.17

3. West End Quarry:

#1c	1604	"	5'	5	"	"	2.25
2c	1605	"	5'	5	"	"	2.67
3c	1608		"	5			2.03
4c	1609		"	5			1.54
5c	1610	"	"	5	"	"	2.38

4.) West End Quarry Footwall (not well defined)

#1d	1606	Cross Cut A		.....	$ 2.25
#2d	1607	"	" B	.....	2.53

5.) North Tunnel Body - Surface:

#1e	1674	"	——	4	"	"	8.75
#2e	1675	"	10'	5	"	"	11.14
#3e	1676		10'	5	"	"	7.99
#4e	1677		10'	5	"	"	11.78
#5e	1678	"	10'	5	"	"	8.62

6.) North Tunnel Body - Surface Footwall

#1f	1673	Cross Cut	.....	3.93

Average value per ton of 27 samples taken from various parts of the surface of the Portland Mine 4.84

1.) Shaft North Side: - North Tunnel Body:

#1a	1784	Distance	—	4 ft. wide	Values	$ 1.83
#2a	1788		5'	4 "	"	3.44
#3a	1791	"	"	5		7.99
#4a	1793		"	5		3.93
#5a	1832		"	5		5.18
#6a	1833		"	5		3.44
#7a	1835		"	5		4.44
#8a	1808		"	5		1.55
#9a	1809		"	6		3.65
10a	1810		"	6		4.28
11a	1811		"	4		7.23
12a	1812		"	5		8.42
13a	1836		"	6		5.74

2.) Shaft - South Side.

#1b	1786	"	"	5½ "	"	10.86
#2b	1787	"	"	6 "	"	12.27
#3b	1790	"	"	6 "	"	12.12
#4b	1792	"	"	6		10.59
#5b	1794	"	"	7 "	"	6.44

3.) Shaft Footwall (not well defined, partly vein matter)

#1c	1785	Cross Cuts		5 "	"	3.09
#2c	1789	"		5 "	"	10.79
#3c	1805	"		5 "	"	5.12
#4c	1807	"		5 "	"	1.33

4.) Shaft North Side, Red Hanging Wall
Cross cuts (7) with average of $ .04 taken but not considered in assay sheet covering the shaft section.

6.) South Tunnel (Shaft)

#1f	1803	Distance	—	Zone 5 ft. wide	Value	$ 7.37
#2f	1804	"	5'	" 6 "	"	7.22
#3f	1806	"	"	6		8.28
#4f	1830		"	6½		5.47
#5f	1831		"	5		5.96
#6f	1834	"	"	5 "	"	4.56

Average value per ton of 28 samples taken from North Tunnel Body Shaft Section ..... $ 6.16

FROM REPORT OF DR. EMIL RAUSCH ON THE PORTLAND MINE - DATED JULY 14, 1940.

1.	Little Ore Body - A V E R A G E	$ 7.39
2.	South Tunnel Body - Lower & Upper Stopes - dump - Average	7.80
3.	South Tunnel Body - Top Stope - Average	6.75
4.	North Tunnel Body - A V ER A G E	8.45
5.	Surface	4.84
	General average for the whole mine - according to above sampling	$ 7.03

Assays of Samples taken from the Portland Mine - South Tunnel Body:

1.) West Stope:

#1a	1712	Distance —		4½ ft. wide	Values	$ 3.71
2a	1713		5'	6 "	"	3.93
3a	1714	"	"	5 "	"	3.93
4a	1715		"	5		6.10
5a	1716		"	4½		4.77
6a	1717		"	5		3.93
7a	1718		"	4½		6.94
8a	1719		"	4½		6.94
9a	1720		"	4½		6.10
10a	1721		"	4½		5.88
11a	1722		"	4		3.86
12a	1736		"	5		6.66
13a	1737		"	4½		4.63
14a	1738		"	5		7.71
15a	1739		"	4 "	"	6.31

2.) West Stope "Footwall" (in fact; vein matter)

#1b	1729	Cross Cuts	..... "	7.02
#2b	1730	"	"	4.14
#3b	1731	"	"	3.37
#4b	1732	"		3.51
#5b	1733	"	"	3.93
#6b	1734	"	"	4.21
#7b	1735	"	"	3.30
#8b	1766	"	"	8.28
#9b	1767	"	"	4.42
10b	1768	"	"	7.65
11b	1769	"	"	4.64

3.) West Stope Pillars - (Vein matter)

#1c	1762	6' wide	"	5.19
#2c	1765	6½ "	"	3.93

4.) Lower Stope Footwall (Vein matter)

#1d	1763	irregular ←—Cross Cut	..... "	5.12
#2d	1764	" " "	..... "	5.69

5.) Check Sample

1711 - See 1571 - South Tunnel Body Surface Footwall 1.96

Average value per ton of 31 samples taken from South Tunnel Ore Body West Stope: 5.09

Bisbee, Arizona

December 30, 1949

Mr. Thomas Bardon

Portland Mine

You wrote me about the Portland mine near Kingman, Arizona. I contacted a Mr. Payne, whom I know, and who had worked at the Producers' Mill not far from the Portland. He gave a very good report on the property; so I called Mr. R. P. Jones to whom you referred in your letters. I arranged for a visit to the property and was accompanied by Mr. Jones and Mr. Phil Morse. Mr. Jones is very talkative and somewhat on the high-pressure type. However, I found the property to be as they described it. All maps and records were in California and they promised to get these for our inspection.

I believe this mine has some excellent possibilities if properly equipped and mined on a basis of not less than 1,000 tons per day. Milling should be done at the mine.

Mr. Jones has two other properties in the same range of mountains which he declares are equal to, or better, than the Portland owned by Mr. Potter. They are stock companies and will relinquish 60% of the stock for finance money sufficient to place the mine in operation and build a cyanide mill. All these properties are reported to have large tonnages with grades of ore equal to those of the Portland.

Perhaps I have been oversold by the things I saw, but I believe the property warrants further examination. I suggest that Mr. Newell and Mr. Hamilton look the property over and that Mr. Hamilton investigate the metallurgical results obtained on the 132,000 tons milled at the Producers' Mill and at the Catherine Mill.

Herewith you will find my report on the Portland Mine.

J. A. Wilcox

J. A. Wilcox,
Manager

JAW/c
Encls.

THE PORTLAND MINE

KINGMAN, ARIZONA

The Portland Mine in the San Francisco Mining District of Arizona was visited on December 18th. I was accompanied by Mr. R. P. Jones, and Mr. Phil Morse, both of Kingman, Arizona.

LOCATION

The Portland Mine is located in Mohave County, Arizona, 46 miles Northeast of Kingman by road. Twenty-five miles is on Highway 93 to Hoover Dam and 19 miles over a graded county road that is high gear nearly all the way. The Mine site is 4 miles from the Colorado River and will be on the Lake-side of the Lake formed by Davis Dam when completed next year. The mine is at an elevation of 1,400 feet and will be 800 feet above Davis Dam Lake. There is a power line 12 miles distant. Davis Dam and the town of Bull Head, Nevada, will be 12 miles distant.

CLIMATE

The climate is very arid and practically free of snow in the winter. The summers are hot with a minimum of rainfall. Roads are seldom closed by storms.

GEOLOGY

The range of mountains in which the mine is located parallels the Colorado River and is called the River Range. Several big mines are in this range; the Gold Roads, United Eastern, and Gold Standard. The range was built by volcanism in the Tertiary age and is composed of Rhyolites and Andesite intrusions with later Kalapois Coverings. Ore occurrences are predominately in Metamorphosed Calcite beds which have become highly silicified. Gold and silver are the only metals to be found and they occur in almost microscopic particles disseminated through quartz.

GEOLOGY (Continued)

The metal bearing structure consists of two parallel veins, one about 20 feet thick and the other about 100 feet thick. The separating horse of waste is from 5 to 10 feet wide. The veins dip to the east at 27° and outcrops across a ridge for 2500 feet. A third vein of 5 foot thickness runs at right angles to the other across the south of the property and it dips to the North at about 40°. The ore is very sicilicious and dense and has a greenish cast.

PRESENT DEVELOPMENT

The mine was developed by a hundred foot shaft which is inaccessable. A tunnel on the surface level runs through the ridge for 900 feet. From this area a considerable tonnage was mined by room and pillar methods. All the ore was mined from the upper or 20 foot vein. No ore was mined from the thicker vein. Part of the tonnage mined was from the surface with shovels and trucks. It is reported that 152,000 tons were extracted and trucked, to the Catherine and Producers Mills, both some 17 miles distant.

Many samples from the thicker veins are reported to indicate equal values with those obtained in mining the thinner vein. The average recovered value reported to me on the 152,000 tons was $7.94 per ton. Closure of the mine was forced by the embargoes placed on gold mines in 1942. Mining was done by antiquated methods and on much too small a scale for the grade of the ore and in view of the large tonnage available. There is no equipment of value on the property.

The owners report 500,000 tons of ore available above the present truck loading deck, and another 500,000 tons down to 100 feet below ground. These figures seem to be fair estimates provided exploration work verified the reported values in the thicker vein.

FUTURE EXPLORATION

Verification of reported tonnage and grade would require about ten drill holes approximately 200 feet deep, and some test runs on ore from outcrops and old areas. The records of past shipments would be valuable information for comparative

purposes. Shattuck Denn owns all the equipment necessary for drilling and drifting.

MINING METHODS

The first 100,000 tons can be mined with shovels and trucks. Drilling could be by churn drill and it appears secondary blasting will be required. Very little stripping will be required to this depth. During the mining of the surface ore a shaft could be sunk to a depth determined by drilling, and the deeper part of the ore body mined by Room and Pillar methods. I believe mining should be carried on at the rate of 1,000 tons or more, per day.

MILLING

It seems that milling at the mine site is essential. This would require the erection of a 1,000 ton cyanide mill. Water would have to be pumped 4 miles against an 800 foot head from the Colorado River. Power is available 12 miles away. Perhaps the mills at Gold Roads and Producers could be bought and moved. The ore must be finely ground (80%-200 mesh) for good recoveries. The Producers' Mill is reported to have made better than a 95% recovery.

TERMS

The terms are those quoted in your letter of December 2nd. Mr. Jones assured me that titles are clear and there are no liens involved. He stated a period of exploration without cost could be arranged.

ESTIMATED MINING & MILLING COSTS

Mining	150
Milling	175
Marketing	25
Exploration & Development	100
	450
Reported Values	794
Net Earnings	344

CONCLUSION

I feel that this property merits further examination and a more thorough study of mining and milling procedures and costs be made.

J. A. Wilcox

- - - - -

1435 S. 10th AVE.
P. O. BOX 1889

DUPLICATE

Jacobs Assay Office

Registered Assayers

PHONE 622-0813

TUCSON, ARIZONA 85702

Certificate No. 60390

Oct. 20 1980

Sample Submitted by Mr. Fisher Watt

SAMPLE MARKED	Gold ozs. per ton ore			Silver ozs. per ton ore		SAMPLE MARKED	Gold ozs. per ton ore			Silver ozs. per ton ore	
Part 1	1.	282		2.	35	Part 15	1.	134		0.	70
2	1.	111		1.	75	16	Trace			<0.	05
3	0.	102		<0.	05						
4	0.	054		0.	70						
5	0.	14		0.	45						
6	0.	146		0.	70						
7	0.	116		1.	75						
8	0.	05		0.	35						
9	0.	39		0.	55						
10	0.	35		0.	00						
11	0.	34		1.	30						
12	0.	03		0.	75						
13	0.	331		0.	70						
14	0.	124		0.	40						

~~* Gold Figured $35.00 per oz. Troy~~

Charges $ 10.00 < less than

Very respectfully,

Jacobs Assay Office

1435 SOUTH 10TH AVENUE
TUCSON, ARIZONA 85713

Jacobs Assay Office

Registered Assayers

Since 1880

PHONE 622-0813

Certificate No. 60650

TUCSON, ARIZONA 85713 Nov. 4, 1980

Sample Submitted by Mr FISHER-WATT

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
PORT-17	0.258		1.00				
18	0.146		0.30				
19	0.230		0.55				
20	0.105		0.50				
21	0.206		1.10				
22	0.098		0.55				
23	0.071		0.40				
24	0.158		0.50				
25	0.174		0.25				
26	0.085		0.20				
27	0.494		0.35				
28	0.081		0.55				
			11				

* ~~Gold Figured $300.00 per oz. Troy~~

Charges $ 78.00

Very respectfully,

Mary Jacobs

1435 S. 10th AVE.

Jacobs Assay Office

Registered Assayers

PHONE 622-0813

Certificate No. 60704

TUCSON, ARIZONA 85713 Nov. 10 1980

Sample Submitted By Mr. FISHER-WATT

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore *	SILVER Ozs. per ton ore	LEAD Per cent Wet Assay	COPPER Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
PORT -30	0.009	$	< 0.05				
-31	0.032		0.20				
32	0.142		0.80				
33	0.196		2.80				
34	0.144		0.80				
35	0.020		0.60				
36	0.122		1.35				
37	0.292		1.80				
38	0.444		1.40				
39	0.005		0.05				
40	0.021		0.10				
41	0.052		0.75				
42	0.167		0.85				
43	0.064		0.20				
44	0.117		0.60				
45	0.419		2.00				
46	0.027		0.50				
47	0.050		2.65				
48	0.198		1.20				
49	0.032		0.65				
50	0.015		0.30				
51	0.021		0.40				
52	0.043		0.70				
53	0.011		0.15				
Little ore body, < 54	0.317		1.40				
S.P.I. 55	0.035		0.20				
56	0.052		0.65				
57	0.055		0.70				
58	0.041		0.25				
59	0.007		0.80				
62	0.577		2.95				

< LESS THAN

~~* Gold figured $100.00 per oz. Troy~~

Very respectfully,

Charges $20.50

Denn Mill

January 9, 1950

Mr. S.S. Shattuck

Portland Mine

I arrived in Kingman January 2nd and contacted Mr. Jones who gave me some additional information regarding the Portland Mine. We made an appointment to go out to the mine Tuesday January 3rd.

Portland Mine:

On january 3rd we drove out to the Portland, went through the mine and covered the surface. I was very impressed with what I saw and, having only a limited experience with mines, can only say that I agree with Mr. Wilcox in his statement concerning the potentiality of the mine.

Producer Mill:

We then visited the Producer Cyanide Plant where in 1941 ore from 80 different mines were treated on a custom basis. This plant has a 250 ton capacity, having been built in 1937. It is in excellent condition and is complete. I was told that the plant was available for $100,000.00 with a tentative cost of $50,000.00 to move and set it up at the Portland Mine.

Later I had a long talk with Mr. Bob Payne who was, for two years, superintendent of the Producer Mill. He said that on all the ores treated a recovery of from 95-98% recovery was made paying for 92%, thus averaging about 0.48¢ a ton additional profit over the milling charge. Mr. Payne also said that although he did not mill any ore from the Portland Mine he did run tests attaining a recovery of 98% by grinding to 80% minus 200 mesh which is some finer than required by most of the other ores.

Goldroad Mill:

The Goldroad cyanide plant which was also built in 1927 was then examined. It has a capacity of 400 tons and although the crushing plant and half of the grinding circuit is gone, the rest of the plant is in excellent condition. The price of this plant is $50,000.00 including all mine equipment which is considerable.

While at the Goldroad Plant which is near Oatman we were in the vacinity of the Victoria and Lexington properties owned by a company of which Mr. Jones is President. We went over the properties of which the only value gained was to accentuate the tremenduous possabilities of the country as a gold producer.

Records of Portland ore treated:

I was very fortunate in Mr. Jones obtaining, through a bookeeping firm, the yearly report for the fiscal year ending on October 31, 1938 of the Gold Standard Mines Corporation. This was the company at whose Katherine Mill the Portland ore was treated.

In this report it was stated that from 1934 to October 31, 1938 a total tonnage of 315,807 tons was treated from nine different mines of which 118, 870 tons were from the Portland

Dunn Mill

January 9, 1950

Mr. S.S. Shattuck

Portland Mine,

The cost of reducing the ore to bullion and marketing same was $1.27 per ton of which a breakdown follows at the end of this report.

A breakdown of each ore milled was made giving the actual gross recovered value for the Portland as $7.99 per ton. At no place in the report could be found a gross value of an ore or a percentage of recovery, but by calculating from gross values reported for royalty purposes for the Portland, an average gross value of $8.34 was established with a mill recovery of 95.80%.

The Gold Standard Mines Corporation either owned or leased most of the properties from which ore w as received. The Portland was leased and following is a report of the operation.

Portland ore milled in 1938, 27,925 tons.		
Gross recovered value per ton		$7.99
Marketing and Milling	1.27	
Mining Royalties and Hauling	4.47	
Camp, board and Administration	.55	
Operating profit		1.70
Depreciation etc	.59	
Net Profit		1.11

The milling cost was based on an average daily tonnage of 174 tons.

With the property owned, a mill on the property and a minimum of 600 tons per day produced the following figures should be considered. Although labor a nd other costs are up, power costs are the same and reagent costs are very little higher. Therefore, the milling cost plus pumping water from the river should not exceed $1.50 per ton. Royalties amounted to 0.83¢ per ton and trucking about $1.70 per ton. Therefore, on a high tonnage basis mining should come well within $2.00 per ton. With the town of Bullhead within driving distance of the mine, Housing and boarding house would be eliminated.

Summary:

From the available information the following facts were established;

The total tons mined and treated was just over 132,000 tons, with an average gross value of $7.97 per ton based on the royalty reports. The recovery based on actual figures available on 27,925 tons was 95.803% on an average gross value of $8.34 per ton.

Denn Mill

January 9, 1950

Mr. S.S. Shattuck

Portland Mine

Page "3"

It seems from the available information, making allowances for increased costs and based on a production of 600 tons or better per day that a milling cost of $1.50, including pumping water from the river, and a mininb cost not to exceed $2.00 per ton can be made. Other costs should not exceed 50¢ per ton making a total cost of $4.00 per ton. (I mention a production of 600 tons per day because that would be a minimum tonnage that could be treated in the Producer and Coldroad Cyanide Plants if they were moved to the mine).

I understand that the Portland can be bought for $50,000.00 and Mr. Jones tells me that a 90 day examination period would be allowed.

Milling cost of the Katherine Cyanid Plant for the fiscal year of 1938 on 63,562 tons.

	Cost per ton
Salaries and wages	0.3187
Compensation Ins.	.0153
Unemployment tax	.0090
Old Age Benefit Tax	0.0030
Total Emp. Cost	0.3460
Treatment Materials	0.1667
Grinding Balls	.1012
Ball Mill Liners	.0366
Gas, Oil and grease	.0100
Other supplies	.0179
Repairs and Replacements	0.0301
Total material & Sup.	0.3625
Sampling	0.0384
Warehousing	.0121
Total Service other Dept.	0.0505

Dann Mill

January 9, 1950

Mr. B.S. Shattuck

Portland Mine

Page "4"

COPY

Power Purchased	0.4279
Property Ins.	.0229
Property Tax	.0075
Total other costs	0.4583
Total Milling costs	1.2173

J. S. HAMILTON
Mill Supt.

JSH/LD

c.c. Mr. Thomas Bardon
Mr. H. F. Mills
Mr. J. A. Wilcox

Fischer-Watt Mining Co. Inc.

ADMINISTRATIVE OFFICE: 114 TUCKER, SUITE 2
KINGMAN, ARIZONA 86401
PHONE: (602) 753-1622

TO: Carl E. Fischer, M.D. Roswell
FROM: W.P. Durning, D.R. Muchow
SUBJECT: Portland Mine

INTRODUCTION

The Portland Mine is located about 50 road miles northwest of Kingman in the west central portion of the Black Range, Mohave County, Arizona. Past recorded production from the Portland is 132,000 tons grading 0.201 o/T Au from both open pit and underground operations. The Portland is a massive quartz-calcite vein of the Oatman type locally over 30 feet thick and containing low grade gold values throughout. It is estimated that in excess of 100,000 tons of open pit reserves grading +0.10 o/T Au could be proven with a small inexpensive drilling program. Although no sepcific terms have been discussed with the owners it is believed reasonable terms can be negotiated.

OWNERSHIP

The Portland Mine owners are represented by Samuel L. (Lee) Clark, 3955 Maple Tree Drive, Anaheim, California 92807 Office telephone 714/632-1979; Home telephone 714/637-0762.

LOCATION AND ACCESS

The Portland Mine is located in the Weaver Mining District in parts of Sections 10, 11, 14, 15, 23 and 24; T23N R21W. Access is via paved, graded gravel and unmaintained dirt roads. The property is reached by driving 26.6 miles north from Kingman on Highway 93 then 8.8 miles west on the graded gravel Cottonwood Wash Road then 10.9 miles south on a little used but passable dirt road.

LAND STATUS

The Portland Mine area is covered by 3 patented lode claims and 19 unpatented lode claims which may now be invalid due to lack of assessment work during 1979. These claims should be re-papered immediately. The unclaimed ground is federal land open for location.

WILDERNESS STUDY AREAS

The Portland Mine and access routes from the main gravel road are surrounded by wilderness study areas north, east, and south of the mine and the Lake Mead National recreation area to the west. The patented Portland Mine claims and the access road to the mine are excluded from the wilderness. Discussions with Roger Taylor, Director of the Kingman BLM indicate that we can legally operate a mine on the patented claims and use the road as it now exists for access. Road improvements and expansion of the mine to the unpatented claims would require BLM approval which would not be unreasonably withheld.

Fischer-Watt Mining has developed a very good working relationship with the BLM and Roger Taylor who is pro-mining if done in a business-like and environmentally sound manner. I would not anticipate any serious problems from the BLM should a production decision be made.

HISTORY AND PAST PRODUCTION

The Portland was discovered about 1920. From 1935 to 1940 it was under option to the Gold Standard Mines Corporation which produced 132,000 tons of open pit and underground ore grading 0.201 o/T Au. In 1939 Gold Standard closed the Portland operations in favor of the Tyro Mine which was closer to their Katherine Mill. In 1937 C.M. Becker made an ore reserve estimate for Gold Standard which showed proven reserves of 287,000 tons grading 0.19 o/T Au in three orebodies. If these figures are accurate then at least 155,000 tons of these reserves should still remain in the mine.

During 1950 Continental Mining Corporation and Shattack Denn Corporation made studies of the Portland but concluded that at post World War II costs the mine could not be profitably operated.

In 1978 and 1979 ASARCO Inc. initiated a surface sampling and hammer drilling program in hopes of developing a large low grade open pit reserve. The drilling results were disappointing and they returned the property to its owners.

In October, 1980 D. Muchow and W.P. Durning visited the property and concluded that further evaluation of the property was justified.

GEOLOGY

The principal rock types in the Portland Mine area are a thick sequence of Tertiary volcanic flows and tuffs which are underlain by preCambrian granite. There are two principal veins, the North vein which strikes nearly N-S and dips from 20-35°E and the South vein which strikes nearly E-W and dips 47° to the north.

The Main or North vein has been extensively explored and developed. Two open cuts, two inclined shafts and two tunnels explored the vein and these developments provided most of the 132,000 tons of ore mined. The vein is massive quartz and calcite varying from 10 to 30 feet in thickness and everywhere carries +0.01 o/T Au. Best values seem to be within 10 feet of the hanging wall and it is believed that this is where the majority of the ore was mined. The main vein shows a surface outcropping of 10' to 30' of massive vein material over an exposed strike length of 800 feet. The vein unfortunately, has not been everywhere sampled in the hanging wall zone but where it has been sampled results in excess of 0.10 o/T Au are common. Around the north and east margins of the main pit and at the limits of underground stoping nearly every sample collected has run in excess of 0.10 o/T Au in the hanging wall zone. It is within this area that the open pit potential may exist on the property. A second observation is that past development never extended more than 100' below the surface and limited drilling information and underground sampling show values generally +0.10 o/T Au over widths of up to 10 feet. Further geological work is needed in order to adequately evaluate the meaning of old assay results but I believe this will only enhance the ore reserve estimates.

The main vein potential could be evaluated very quickly by completing this surface and underground sampling and geological mapping and by drilling 50-60, 50-100' deep air track holes in the area of massive vein outcrops. I would estimate 2-3 months to be sufficient to adequately test the open pit potential.

The South or Small orebody trends nearly E-W and dips 47°N. It is developed via a 100' incline shaft and shows vein widths which vary from 20" to 72" and grades up to 0.32 o/T Au. The vein appears to widen at depth, increase in value with depth and has never been drilled or adequately explored. The surface vein exposure can be traced for at least 1,000' but has only been explored to an incline depth of 100' in one working. In this incline the vein increases in width from 2-3' at the surface to over 6' at the bottom. The overall weighted grade and width is 0.248 o/T Au and a 4.2' average thickness. It should be noted that ore occurs from the surface down and that with several shallow drill holes it may be possible to define a mineable reserve of +0.20 o/T Au.

GEOCHEMISTRY

Fischer-Watt Mining has collected 15 rock chip geochemical samples in the Portland Mine area. All samples showed anomalous values.

The Geochemical results are summarized below:

Sample #	Description	Width	o/T Au	o/T Ag
Port #1	Select Spl Gn Quartz	N.A.	0.282	2.35
Port #2	Dump Spl. S. Pit	N.A.	0.111	2.95
Port #3	S. Pit NE Wall HW andesite	3'	0.022	.05
Port #4	S. Pit NE Wall HW Quartz vein	8'	0.054	0.70
Port #5	Cutting Spl. P.M. 2 ASARCO RDH	N.A.	0.014	0.45
Port #6	Dump Spl. N. Pit	N.A.	0.046	0.70
Port #7	N. Pit Incline Quartz vein HW vein	7'	0.106	1.75
Port #8	"	6'	0.055	0.35
Port #9	S. Pit adit Quartz vein FW vein (?)	5'	0.039	0.55
Port #10	"	57'	0.035	0.60
Port #11	Dump S. Pit adit	N.A.	0.034	1.20
Port #12	Dump Spl. S. ore body	N.A.	0.088	0.75
Port #13	S. orebody 300' w. of incline	2½'	0.331	0.90
Port #14	S. orebody 50' down incline	3'	0.124	0.40
Port #15	S. orebody 50' down incline	3'	0.134	0.90

The values obtained by FWM are consistent with those taken in the past and provide support for the possibility of developing a mineable orebody at the Portland.

ORE RESERVE ESTIMATE

Appended to this report are all the maps and reports on the Portland Mine available to us through the owners, the Arizona Bureau of Mines and the Mohave County Mining library. All indications are that a mineable reserve still exists at the Portland.

The most compelling evidence for a remaining ore reserve is from a report by Elgin B. Holt, Mining Engineer with the Arizona

Bureau of Mines. Mr. Holt cites a report by Clyde M. Becker made for Gold Standard Corporation in 1937. According to this report which is not available to us, the 1937 proven reserves were 287,000 tons grading 0.19 o/T Au + Ag equivalents. Between 1935 and 1939 132,000 tons grading 0.201 o/T Au were removed which means if Becker's work was accurate at least 155,000 tons grading ±0.19 o/T Au must still remain in the mine. Becker's original estimates, however, cannot be confirmed.

An old assay map dated October, 1935, Plate I, outlines the major underground and open pit reserves at the Portland. Most of the indicated ore appears to have been removed by the Gold Standard operation.

Three other surface and underground assay maps, Plates II, III, IV, compiled from data obtained between 1940 and 1950 indicate

#1- The Main vein stopes in the South pit area terminated in ore down dip and to the north averaging 0.10 to 0.20 o/T Au and + 5 feet in thickness. No sampling was done on the south side of the stopes.

#2 - The Main vein stopes in the north pit area terminated in ore both north and south grading 0.10 to 0.20 o/T Au and +5 feet thick. Very limited sampling was down dip.

#3 - Between the South pit and North pit areas much of the massive quartz and calcite vein which remains may be footwall material with values grading from 0.02 to +0.10 o/T Au. This area has never been adequately sampled and may provide a significant tonnage of easily obtainable open pit ore. A few air track holes would give a quick inexpensive estimate of the grade and quantity of the available ore.

#4 - The ASARCO hammer drilling program indicates that values greater than the 0.10 o/T Au occur in the hanging wall of the Main vein down dip from the past productive stopes. Whether the ASARCO values are representative of values to be expected through mining is not known.

#5 - The South orebody shows a proven reserve, estimated by Becker to be, 6,000 tons of 0.4 o/T within the 100 foot incline shaft and the limited drifting from the incline. This estimated grade is higher than the reported mined grade of 0.23 o/T Au. Limited assay data available to us indicates significant tonnages of material grading +0.20 o/T Au probably still exist in the mine but will require further exploration.

METALLURGY

Past production records for the Portland indicate +95% recovery of the values contained in the ore which included both gold and silver. The ore is of the Oatman type and requires grinding to 80% - 200 mesh.

CONCLUSIONS

All available data indicate that the Portland may provide an attractive exploration, mining and milling opportunity for the McCracken partners.

RECOMMENDATIONS

It is recommended that:

1) That the ASARCO lode claims be repaperd.

2) A lease option agreement be negotiated with the present land owners.

3) Further surface and underground geological mapping and sampling be completed at the Portland to verify past sampling results and permit better geological interpretation of the assay values.

4) 50-60 air track drill holes be drilled to test the massive quartz-calcite vein outcropping between the North and South pits of the Main vein.

5) A limited shallow drilling program be initiated in the area of the South orebody to determine its extent and grade.

DEPT. MINERAL RESOURCES
RECEIVED
MAR 10 1944
PHOENIX ARIZONA

To: J. S. Coupal

From: Elgin B. Holt

Subject: Portland Gold Mine 23N, 21W

Suggest you call Broadgate's attention to this mine

Some time ago, you and Charlie stated that Bill Broadgate had a client who was in the market for a gold mine that would supply a 400-ton mill. Later on I sopke to yourselves about the Portland gold mine, located 50 miles northwest of Kingman.

Without mincing words, the Portland is by far the best gold mine I have ever examined in Arizona, excepting Goldroad, and it can be secured on reasonable terms.

E. A. McVicar, of Kingman, represents the owners of this property and any deal should be negotiated through him. He is a reliable business man of this community and can be depended upon in every way.

I am herewith inclosing my report on Portland, mainly compiled from authentic records in McVicar's office, but partly from my own investigations, as I have inspected it a number of times.

You will note that Portland was examined during 1937 by Clyde M. Becker, a geologist of high standing, now deceased. He estimated that the mine then contained 287,000 tons of ore averaging $6.64 gold per ton.

It seems that Becker was very modest in this estimate, as Gold Standard actually mined and milled 132,000 tons averaging $7.22 gold per ton, according to this company's own assays, used as a basis for figuring royalties to owners. It is a well-known fact that Gold Standard used an adequate safety factor in reporting assays. So I would say off-hand this 132,000 tons in all probabilities contained about $8.00 gold per ton, not counting

the silver content, which seems to run around one ounce per ton in Portland ores. By cyanidation, a goodly portion of the silver values would be recovered along with the gold. Possibly the recoverable silver should at least equal 50 cents per ton, an item not to be sneezed at.

You will also note that this mine, after its abandonment by Gold Standard, was thoroughly sampled by the Continental Mining Company of New York and also by Mette & Hamron of Los Angeles; results of both samplings averaging around $7.00 gold per ton.

The main Portland vein is wide, from 12 to 20 feet in thickness and crops for 1200 feet. I would say at least half of the ore mined by Gold Standard was quarried from the outcroppings of this huge vein. The managers of this company were chloriders, and not miners. They gutted the surface croppings of a half-score of mines surrounding the Katherine mill. They were not interested in the development of any mine in this or any other area.

Roughly I would estimate that if the Portland vein could be developed by sinking an inclined working shaft on vein and then blocked out by drifts on vein at 100-foot intervals, that each 100-foot block below the present workings would yield at least 100,000 tons of ore, estimated to run around $7.00 gold per ton, with a little silver. Furthermore, deducting the 132,000 tons mined by Gold Standard from the 287,000 tons originally reported by Becker, the Portland now has indicated about 155,000 tons, averaging about $7.00 gold per ton, although this ore is not blocked out by any means, and should be considered as probable ore only. In the bottom of the "Big Stope" the vein is still at least 12 feet wide, with values holding to around $7.00 gold per ton.

Again, Portland ore is composed of quartz and calcite, with no deleterious minerals or metals present. The gold is finely divided in the ore, in the nature of "flour" gold. Hence, this ore is amenable to treatment by cyanidation, by which 97% of the gold and 90% of the silver should be recovered as bullion. This statement is true of most of the other gold mines of that general region.

As to terms, Mr. McVicar states the Portland mine can be purchased outright for $100,000, with around $25,000 cash and the balance in term payments over a period of years, mainly payable from royalties figured at about 10% of recoverable gold and silver values. It being understood that a monthly payment, figured as advance royalties, must be paid owners in the sum of $500; same to apply on the purchase price. Under this arrangment, purchasers will not be obliged to work the mine for the duration.

While the Portland, in its present stage of development, would not warrant the erection of a 400-ton mill, it has all the earmarks of a large-tonnage mine in the making. Also, additional ore in considerable amounts could be secured from several other gold mines within a radius of 10 miles of this property.

GOLDEN DOOR & KLONDYKE MINES:

Attached hereto are two reports by McVicar, one regarding the Golden Door and the other concerning the Klondyke mine, both located near together around 10 miles north of Portland. These are potential large-tonnage gold mines, especially Golden Door, which has a record production from surface workings, per McVicar, of 20,000 tons of ore milled, averaging $8.59 gold per ton. These two mines can be secured, through McVicar, from owners on reasonable terms, by paying owners a monthly stipend; and should be worked in conjunction with Portland.

MINING & MILLING COSTS:

I would say roughly the costs of mining and milling Portland ores, using pre-war figures, should not exceed $3.50 per ton, not including taxes. Hence, estimating mill heads at $7.00, a goodly profit should be made, when and if we ever get back to "normalcy". Also, should gold be revalued upward, later on, which seems to be in the offing, profits would be increased accordingly.

If you think Broadgate would be interested in presenting these properties to his clients, I suggest you have copies made of the three reports, inclosed herewith, together with a copy of this letter, and mail the same to him. If he is then interested, he can then take these properties up direct with McVicar, whose address is: E. A. McVicar, Kingman, Arizona.

Elgin B. Holt

Elgin B. Holt,
Field Engineer.

cc - E. A. McVicar
Charles F. Willis

Ret Asarco Inc.
P.O. Box 5747
Tucson, Az 85703

79-26557
STATE OF ARIZONA } ss PROOFED
County of Mohave }
I hereby certify that the within instrument was filed and recorded at request of Asarco
on AUG 13 '79 - 8 00 AM
in Book 564 of official records, page(s) 562-563
Witness my hand and official seal the day and year aforesaid.
JOAN McCALL
Mohave County Recorder
By [signature]
Deputy Recorder
310

AFFIDAVIT OF LABOR PERFORMED
AND IMPROVEMENTS MADE

STATE OF ARIZONA)
) ss
County of Pima)

R. B. Crist, being first duly sworn, deposes and says that he is a citizen of the United States and more than twenty-one (21) years of age, and resides in Tucson, County of Pima, State of Arizona, and is personally acquainted with the mining claims situated in the Weaver Mining District, Mohave County, Arizona, the names and books and pages of record in the office of the County Recorder of Mohave County, Arizona, and the Bureau of Land Management serial number of the Notices of Location whereof are as follows:

Name of Claim	Original Book	Original Page	Relocated Book	Relocated Page	BLM Serial No. A MC
Goodluck	3N	478	496	69/71	28157
Betterluck	"	479	"	75/77	" 58
Betterluck No.1	"	480	"	78/80	" 59
Sunshine No.3	3U	67	"	72/74	" 60
Portland No.1	"	66	"	81/83	" 61
Portland No.2	3Q	349	"	84/86	" 62
Portland No.3	3U	68	"	87/89	" 63
Portland No.4	496	90/92			" 64
Portland No.5	"	93/95			" 65
Portland No.6	"	96/98			" 66
Portland No.7	"	99/101			" 67
Portland No.8	"	102/104			" 68
Portland No.9	"	105/107			" 69
Portland No.10	"	108/110			" 70
Portland No.11	"	111/113			" 71
Portland No.12	"	114/116			" 72
Portland No.13	"	117/119			" 73
Portland No.14	"	120/122			" 74
Portland No.15	"	123/124			" 75

That all of said mining claims are held in ownership by ASARCO Incorporated, the mailing address for which is P. O. Box 5747, Tucson, Arizona 85703, and Mona Potter, L. M. and J. N. Wiscombe, and L. G. and S. L. Clark, who represents the group, at 3955 Maple Tree Drive, Anaheim, California

92807; that between September 1, 1978 and September 1, 1979, in excess of $34,000.00 worth of work and improvements were done and performed for the benefit of each of the aforementioned claims (19). Work and improvements consisted of road work and drill site preparation performed by Freiday Construction, 3360 North Bank Street, Kingman, Arizona 86401, and air hammer drilling performed by Hugh M. Harris Drilling Company, 13636 Jack Rabbit Road, Poway, California 92064

Said labor was performed and improvements made at the expense of ASARCO Incorporated, for the benefit of each and all of said mining claims comprising said contiguous groups as part of a general plan of exploration, improvements, and development, and they tend to explore, improve and develop each and all of said mining claims. The amount expended for and the value of said labor and improvements is more than One Hundred Dollars ($100.00) for each of the mining claims and at least said amount was allocated to each of the mining claims. Said expenditure was made in good faith for the purpose of exploring, improving and developing said contiguous groups of mining claims, and was intended as annual labor and improvements for each and all of the above-described unpatented lode mining claims for the assessment year ending at 12:00 o'clock meridian, September 1, 1979.

ASARCO Incorporated

By R. B. Crist
Agent

STATE OF ARIZONA)
) ss
County of Pima)

The foregoing instrument was acknowledged before me this 10th day of August, 1979, by R. B. Crist.

Mildred C Cain
Notary Public

My Commission Expires:

My Commission Expires Nov. 28, 1980

averaging 12 feet in thickness, but "bellies" out in places to 20 feet or more in width. The vein gangue is composed of quartz and calcite, with no deleterious metals present. Hence the ore is ideal for treatment by cyanidation, by which process around 97% of gold values should be recovered.

MINE WORKINGS: The main workings of property consist of the following openings: 1. A 100-foot shaft sunk on the cross-vein, exposing the "Little Ore Body" mentioned by Becker. 2. The South Tunnel which develops the "South Tunnel Ore Body"; and 3. The North Tunnel, which develops the "North Tunnel Ore Body." Also at the bottom of the 100-foot shaft on the cross-vein a drift 100 feet in length has been run on vein, which is from 4 to 6 feet wide of good milling ore. It will be noted that this ore, per Becker, assays from 0.18 to 0.44 ounces gold per ton.

The South Tunnel is about 200 feet in length connecting with the "Big Stope" at back end, which is now partly caved; but ore faces in stope are accessible for sampling.

The North Tunnel starts as an open cut about 100 feet in length on the main vein, and continues south as a tunnel partly on vein and partly in the foot wall to a point where it connects with the "Big Stope" workings. Also there is a shaft 100 feet deep on vein near the mouth of the open cut at north end of property; also a 100-foot drift running south on vein from the bottom of the said 100-foot shaft and connects with a raise to the open cut above. All of these workings are open and accessible for sampling.

MINE SAMPLED BY OTHER ENGINEERS: After the Portland mine was abandoned by Gold Standard, it was sampled by engineers representing the Continental Mining Company of New York and also by Motte and Hamron of Los Angeles. The average results of both of these samplings gave better than $7.00 gold per ton, according to records in McVicar's office, and which can be examined at any convenient time.

WATER: Ample water for milling and domestic purposes could be secured from the Colorado River, six miles from property, by means of an application for a water right from the Arizona Water Commission.

MILLING PLANT: Further work should be done on the Portland Mine in order to determine its ore reserves, average value of ore, and the capacity of a treatment plant that should be installed at a later time. As additional ore could be secured in quantity for such a plant from four or five other gold mines within a radius of 10 miles of Portland, it is believed that an operation could finally be developed that would result in supplying a mill of large capacity, say from 300 to 500 tons daily, with gold ore of goodly grade over a long period of years.

/s/ Elgin B. Holt
Elgin B. Holt
Field Engineer

DEPARTMENT OF MINERAL RESOURCES
State of Arizona
FIELD ENGINEERS REPORT

MINE: PORTLAND DATE: March 3, 1944

DISTRICT: Minnesota-Weaver, Mohave Co. ENGINEER: Elgin B. Holt

SUBJECT: Gold Mine Survey

REPORT

OWNER: J. A. Potter, Kingman, Arizona

AGENT: E. A. McVicar, Kingman, Arizona

METALS: Gold with small amount of silver

AREA: LOCATION: This property, consisting of 3 patented and 5 unpatented claims, is situated in Mohave County, Arizona, 50 miles northwest of Kingman and six miles east of the Colorado River. From Kingman, the property is reached by following U. S. Highway 93 north 28 miles to Pleasant Valley Junction; thence west along the Searchlight road for 10 miles; thence southwesterly about 12 miles to the mine.

HISTORICAL:

Property was discovered about 1920. From 1935 to 1940 it was worked under a lease and option arrangement by the Gold Standard Mines Corporation. During this period approximately 132,000 tons of ore were milled averaging $7.22 gold per ton, according to settlement sheets now on file in McVicar's office in Kingman. The said ore was treated in the Katherine cyanidation plant located 11 miles southeasterly from property, or about 16 miles over a very poor sandy road, over which the ore was hauled by trucks. The property was abandoned during 1940 by Gold Standard due mainly to the fact about that time this company secured control and started operating the Tyro mine, a much larger property and located only 7 miles from the Katherine mill.

GEOLOGY: Per F. C. Schrader, 1909, "The country rock", of that general area, "consists of the Tertiary volcanic rocks, with rhyolite and green chlorite andesite most abundant."

ORE RESERVES: During April, 1937, after the Gold Standard company had started work on the Portland mine, Mr. Clyde M. Becker, a very able geologist, reported on that property as follows:

"I estimated that approximately 700 feet of development work on these three ore bodies had proven 287,000 tons of ore of an average value of $6.64 (gold) per ton."

Referring to the cross-vein on the Portland claim, Becker stated: "On the little ore body an inclined shaft had been sunk 100 feet with ore of grade similar in type and values to the south tunnel ore body. A series of assays taken at 95 feet ran 0.18 to 0.44 ounces gold. All carry silver in the approximate ration of 5 to 1 by weight. No other mineral (metallics) is present."

MAIN VEIN: The main vein, which strikes north to south, is a wide flat vein dipping about 35 degrees easterly. The deepest work on mine is about 100 feet vertically, reaching the permanent water level. The main vein mentioned is exposed on surface for around 1200 feet; but it is believed to extend 500 feet further to the south through a basin where the vein is covered by debris. This vein is wide,

Bisbee, Arizona

December 30, 1949

Mr. Thomas Bardon

Portland Mine

You wrote me about the Portland mine near Kingman, Arizona. I contacted a Mr. Payne, whom I know, and who had worked at the Producers' Mill not far from the Portland. He gave a very good report on the property; so I called Mr. R. P. Jones to whom you referred in your letters. I arranged for a visit to the property and was accompanied by Mr. Jones and Mr. Phil Morse. Mr. Jones is very talkative and somewhat on the high-pressure type. However, I found the property to be as they described it. All maps and records were in California and they promised to get these for our inspection.

I believe this mine has some excellent possibilities if properly equipped and mined on a basis of not less than 1,000 tons per day. Milling should be done at the mine.

Mr. Jones has two other properties in the same range of mountains which he declares are equal to, or better, than the Portland owned by Mr. Potter. They are stock companies and will relinquish 60% of the stock for finance money sufficient to place the mine in operation and build a cyanide mill. All these properties are reported to have large tonnages with grades of ore equal to those of the Portland.

Perhaps I have been oversold by the things I saw, but I believe the property warrants further examination. I suggest that Mr. Newell and Mr. Hamilton look the property over and that Mr. Hamilton investigate the metallurgical results obtained on the 132,000 tons milled at the Producers' Mill and at the Catherine Mill.

Herewith you will find my report on the Portland Mine.

J. A. Wilcox

J. A. Wilcox,
Manager

JAW/e
Encls.

R/H