



STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

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STATE ASSAY LABORATORY
2102 COURT STREET
BAKER, OREGON

STATE DEPT OF GEOLOGY
& MINERAL INDS.

December 15, 1937

Mr. Earl K. Nixon
704 Lewis Bldg.
Portland, Oregon

White Swan Mine

Dear Mr. Nixon:

Enclosed you will find report on the White Swan Mine. I went out there yesterday intending to stay one or two days in order to follow out the plans that we discussed during your visit here. However, I found the mine closed down and everyone packing up. Last Friday was the final working day.

Mr. Zarimba and Mr. Douglas were at the mine having just returned from Yakima, where I presume the decision was made to close down now and reopen in the spring.

I had a long talk with them and they asked for our cooperation before reopening. I stressed to them the vital importance of having a definite plan of development in mind and if that particular plan was not successful to forget the proposition.

They gave me all the maps I wished to take in order for us to have blue prints made if desired and also to study the situation. Please advise me if you wish to have them forwarded to Portland.

I followed your cue and did not mince words with them but stressed their errors and the possible solution by planned development, all of which they accepted in good form.

I did not make any sectional views as it appeared useless at the present time. The third level was already partly under water, and as the hoist was disconnected I did not go underground. I took several samples (grab variety) through the mill and also one in that surface tunnel which Dave Worsham (the mine foreman and also one of our grubstakers) took us through. A stope has been cut through to grassroots in that surface drift. I took dips and strikes both here and in the small inclined shaft at the crest of the hill. Both places were dipping 36° to the south. If this dip were persistent this vein would be south of their present workings at the depth of the third level. I believe a little intensive study might reveal a possible chance for successful development.

Sincerely

I am planning a several days trip into Grant, Malheur, Harney and Baker counties, so that if you wish to see me on your contemplated trip to Baker I would appreciate having you advise me as to the possible date of arrival.

With best regards

Al
Albert V. Quine
Mining Geologist

QUARTZ PROPERTY

Virtue Dist

Raton

1. Name of property White Swan Mine
 Operating company (or individual) White Swan Gold, Inc.
 Address Baker, Oregon V.S. Zarimba, Mgr. Box 915-Yakima - Frank Boisselle, Pres. Yakima
 Location of property Virtue District - T 9 S. R 41 E Sec. 25 - SW 1/4
 Acreage of holdings 280 acres

2. History of property, past and recent: Past Production - \$200,000 thru Balliet's regime.
 Recent: Since Sept. 20, 1935 this company has spent \$175,000 -- Production \$30,000 -- (this is according to their statement. Development consisted of enlarging shaft to 2nd level & thence new lift of 150 feet - 12th level was old work to vein split on east side -- balance is recent development -- 2nd level - old work in drift to spring to East - Balance new. Third level &
 3. History of production: connection to old 4th level all recent work. Estimated 2500' of workings.

4. Development: Number of levels, lengths of drifts and cross-cuts, raises, etc.:
 New development: 3 levels. } about 2500 feet of development
 Old Work - 4 levels.

5. General description and equipment on hand, topography, country rocks, elevation, timber, water, snow fall, climate, power, etc.
 Equipment: Washington Machinery single Drum Hoist powered with 175 hp motor. 5/8" cable IR-650 of compressor powered with 100hp motor - 1 substation - Complete Blksmith shop - Varieties of air drills - machine shop with power drill, welding outfit & lathe. Timber brought in - logging \$1500/M - Sawed Timber - \$20.00 - 25.00/M - Stull - 5¢ to 8¢/ft.
 Power average cost for 1936 - approx. \$750.00/mo.
 Argillite country rock - rolling topography - some hills capped by Lava.
 Shut-down - 12/11/37

6. Geology - General and local. Ore geology - type of deposit, i.e., vein, mineralized zone, bed; contact relations, attitude and orientation, vein minerals, gangue, type of mineralization, alteration, enrichment, etc.
 gtz. veins in soft argillite -- past production has been from hi-grade shoots, showing much coarse, free gold. Present work has been done with idea of utilizing ore left in old stopes (As usual none was found) & development of mill ore on east side. To date little mill ore was located. Veins steep dipping underground - but surface croppings on one vein show dip of 36° S. for at least 50' in depth. No enrichments (secondary) - but it is possible that other shoots will be found below the old workings if proper methods of search are used.

7. Metallurgy - nature of ore, hard or soft, free-milling, base, direct shipping, etc. Kind of mill and equipment in use or planned, current daily tonnage of ore or concentrates, approximate value, freight rates to smelter, etc.
 Surface ore - soft, free-milling - deep ore - hard gtz - free-milling -- ore in shoots is good shipping ore but has been milled & I fear, much of it has gone down the creek.
 Mill: - 100 ton Jaw crusher to conveyor-elevator - to crushed ore bin (steel patent) automatic feed to Marcy type Ball mill -- cap. 1 ton/hr -- overflow to plate (2 1/2' square) thence over 2 series of carpets (2 1/2' square) -- tailings pumped back to classifier - Dorrio - 27" x 12' -- overflow goes to tailings pond (wiped out every spring) - oversize back to ball mill.

8. Remarks - economics: High or low cost, principal drawbacks, reasons for success or failure, apparent life of operation based on apparent quantity of ore available.
 Operation has high cost: Management states mining cost to be \$6.00/ton or better, milling cost - \$3.00 to 5.00/ton -- cannot help but be failure as it stands with lack of knowledge of mining & mining methods. Proper plan for future development should be drawn up.

Baker office has complete set of mine maps.

*Albert V. Guine
Mining Geologist*

QUARTZ PROPERTY

- Mine*
1. Name of property White Swan Gold, Inc.
Operating company (or individual) White Swan Gold, Inc. V. J. Zarimbe
Address Baker, Oregon
Location of property Virtue District Box 9, 5. - Yakima
Acreage of holdings 280 acres Frank Boisselle
Pres. -
Yakima
 2. History of property, past and recent:
Recent - Spent - \$175,000 - From Sept. 20, 1935 -
Returns - \$30,000 - mainly above 2nd level & down from 2nd in
wing. Enlarged shaft to 2nd level - drove further, 50 feet - 125' drift was
 3. History of production:
in to vein split on east - rest of work recent, 2nd - drift east from shaft
to spring old - balance recent - drove all third & connection with old 4th
 4. Development: Number of levels, lengths of drifts and cross-cuts, raises, etc.:
3 levels - 4th level of all workings about 10' below new
third. - 2500' east on old & new workings.
 5. General description and equipment on hand, topography, country rocks, elevation, timber, water, snow fall, climate, power, etc.
Equipment - Wash. Mach. - S. drum - 175 hp motor - 5/8" cable - cap. unknown
Inq. R. - 600 c.f. compressor - 100 hp motor - substation - Waugh sharpener,
air hammer & all complete blacksmith - Waugh drill - C P - Gilman - 2 I R
jh. - 2 CD stopers - mercy Type mill - Belt type conveyor - mercy cap. - 1 ton per hr.
grinding 80 mesh - small plate - 2 1/2' x 2' - carpet - 2 1/2' x 2' - small
Door Classifier - machine shop - complete with welding, cutting outfit - power
drill, lathe. Timber - brot in - logging - 15⁰⁰/M - stumps - 20⁰⁰ & 25⁰⁰/M. -
stump - 5 to 8'/ft. - Power - average \$8,000 - 9,000/yr.
 6. Geology - General and local. Ore geology - type of deposit, i.e., vein, mineralized zone, bed; contact relations, attitude and orientation, vein minerals, gangue, type of mineralization, alteration, enrichment, etc.
Shut down - 12/11/37
Heads - variable - -
 7. Metallurgy - nature of ore, hard or soft, free-milling, base, direct shipping, etc. Kind of mill and equipment in use or planned, current daily tonnage of ore or concentrates, approximate value, freight rates to smelter, etc.
 8. Remarks - economics: High or low cost, principal drawbacks, reasons for success or failure, apparent life of operation based on apparent quantity of ore available.

White Swan

Mr.

Present Mgr. & Supt.

Machinery - 650 cu. ft. compressor but I do not think it is making the air.
1 single drum hoist with car cage.
Blacksmith shop with various & sundry old equipment - Wauagh sharpener - Wauagh drilling machines old worn out steel lathe - (what it is for I do not know)
Electrically equipped

Mining method - At a loss to describe it.
No system & no judgment.
No assays seem to be taken - drifts x-cuts & connections driven by guess.

Milking: Flowsheet: Sawconber, elevated to crushed ore bin - automatic feed to a Marry-type mill (cap. 1 ton/hr.) thence over copper plates & a small riffle carpet thence to classification & back to ballmill. Plate & carpet cleanup - retorted, etc. No pilot table & no knowledge of tail loss.

Geology: Sheared argillite -- vein crushed quartz - iron stained near surface. White to grey underground. Values low in gold & silver. Hi-grade pockets sometimes encountered.

White Swan Mine

Gold

NAME

OLD NAMES

PRINCIPAL ORE

MINOR MINERALS

~~19S~~ T ~~41E~~ R ~~38.25~~ S

Baker COUNTY

Virtue AREA

3800 ELEVATION

..... ROAD OR HIGHWAY

14 mi. Baker DISTANCE TO SHIPPING POINT

PRESENT LEGAL OWNER (S) Harold Banta (Trustee)

Address Baker, Ore.

OPERATOR

Name of claims Area Pat. Unpat.

Name of claims Area Pat. Unpat.

EQUIPMENT ON PROPERTY

PUBLISHED REFERENCES

Lindgren 01:725
Swartley 14:131
Gilluly, Reed & Park 33:77
Gilluly 37:98
Lorain 38:26
Ore. Metal Mines Handbook 14A pg-110

MISCELLANEOUS RECORDS

DEPARTMENTAL RECORDS on file in

EQUIPMENT AND VEHICULAR RECORDS

MINES

Handwritten notes in right margin:
Lindgren 01:725
Swartley 14:131
Gilluly, Reed & Park 33:77
Gilluly 37:98
Lorain 38:26
Ore. Metal Mines Handbook 14A pg-110
Baker, Ore.
7

DEPARTMENTAL RECORDS on file in Baker

REPORTS

Correspondence on Mine by Quinn + JEA 1938-39

✓

SHIPMENT AND ASSAY RECORDS

MAPS

Surface + Underground by FA Hamerik (EM) 1935 (1 tracing)

✓

Plan of underground by HL Summerwell & Ames¹⁴³⁷ (1 tracing)

✓

Plan map + sectional view

✓

White Swan

Surface cut shaft drift

Strike of vein - N80E - Dip 36°S.

Sample #1 - 10' below
surface - back of surface drift.
Crushed & broken qtz. with
softer altered vein matter.
width - 2.9'

Upraise above - 556 W to ^{test}
sheave wheel Main shaft
55E to White Swan
Claim #2 - SW corner

Open pits with #5' incline
shaft - top of hill
strike N90E - 36°S

#2 - Grab sample - crude
ore bin.

#3 - Material Concentration
after amalgamation
and quick removed.

#4 - Glass jar - Atlin's
material left after
amalgam has been
separated from trap.

#5 - Paper bags - tails
12/6/37 12/7/37



#6 - Can - Tails for
12/8/37 19/110

#7 - Grab from end
of classifies in
Mayan mine jar

#8 - Tails from pond
- grab - in open
sack.



December 23, 1937

Office No:
122 to 130-12-7

Samples taken from White Swan Mine
by.- A. V. Quine
Mining Geologist

Sample No:	Gold oz/ton	val.	Silver oz/ton	val.	Total value
#1 - 10' below Surface	.10	3.50	.3	.23	3.73
#2	.01	.35	.6	.46	.81
#3	.20	7.00	.7	.54	7.54
#4	1.75	61.25	.2	.15	61.40
#5a	Nil	---	Nil	---	----
5b #6b	.04	1.40	.8	.62	1.82
#7	.02	.70	.5	.38	1.08
#8	.02	.70	.2	.15	.85
6 #9 Slime	.02	.70	.3	.23	.93

Leslie L. Motz, State
Assayer

White Swan Mine - 11/26/37

Broken gtz, gangy vein
material & siliceous argillite(?)
from Best. N. drift on 13⁵
level - width 5 feet.

~~Taken by [unclear]~~

Assay for Au & Ag

#8 Au - Nil

Ag - Nil

WHITE SWAN MINE

VIRTUE DISTRICT:

Is about 10 miles east from its shipping point, Baker, Oregon, on the Union Pacific and Old Oregon Trail. Consists of a group of 15 unpatented lode claims which are recorded in Baker county. Located in a hilly area, the country rock is greenstone, hanging walls and foot walls the same; vein strata bearing northeast and southwest; width 2 feet, length 3000 feet. Mineral is gold; assays at \$8. Water is ample; power from the Eastern Oregon light and Power Company; timber from government land 4 miles away. Equipped with a ball mill and flotation plant; 50 tons per day capacity; shops, 6 ore cars, track, air pipe compressor, power drills and electric power. A good deal of development work has been done. Manager is F. A. Hancock, Baker, Oregon. (Prescott---6/1/37)

TIDY PLANT RUNNING
AT WHITE SWAN MINE
NEAR VIRTUE PROPERTY

A mine that was worked in the 80's and which previous to 1903 produced about \$200,000 in gold is being revived this year by Yakima capital under the management of J. Hancock with 20 men on the payroll and much new equipment in the power house and

mill. This is the property that in 1900 to 1903 was "operated" with brass band and trimmings by Letson Balliet. It is the White Swan mine of the Virtue district.

The new double shaft goes down to the 50 level where a new three-foot vein of \$40 ore is said to have been located in virgin sections of the new workings to the east. The old 126 and 200 levels are supplying about 26 tons of ore daily to the 75-ton cyanide mill, however. A small two-ton test mill in

a month cleaned up \$6200 it is said. The new mill in 15 days netted \$5000. A "675" compressor provides pressure for the airlines in the mine.

Courier
July, 1936

WHITE SWAN MINE

VIRTUE
DIST. DEPOS

The White Swan mine, about three miles southeast of the Virtue, has been practically idle since 1903. The mine was worked successfully in the 80's and was idle from 1897 to about 1900, when it came into the possession of Letson Balliet, who operated this and other properties with a brass band and other similar features until 1903, when the Federal government stopped his operations. Previous to his time the production was estimated to have been not less than \$200,000.

The country rock here in contrast to the diorite at the Flagstaff and the greenstone at the Virtue is a black soft argillite with a few well-defined diorite dikes which are off-shoots from the intrusion below. There are many small veins in the vicinity of the White Swan and in some of these chimneys of coarse gold have been found, although none of large amounts.

6/36

White Swan Shows Promise

The White Swan, in the Virtue district, an old property being reopened, shows promise of again becoming a valuable producer. A new 50 ton mill has been added to the property the past year and has been milling ore for several months. Considerable development work was done on this property before the construction of the mill was undertaken an actual mill work start/