# 840512

#### CONSOLIDATED CINOLA MINES PROPERTY

# LOCATION

Latitude 53°32, Longitude 132°15' NTS 103.F.9

The property is located 500 miles north of Vancouver and 26 miles south of Port Clements, Graham Island, Skeena Mining Division, British Columbia. Graham Island is the most northerly of the Queen Charlotte Islands. The port of Prince Rupert, a town of 15,000 population, is located on the mainland 90 miles to the east.

# ACCESS

The property is readily reached from Vancouver via daily PWA flights to Sandspit. From Sandspit, a ten minute helicopter ride gives access to the property. Road access from Sandspit via a ferry and gravel bush roads takes about two hours to cover the 70 miles to the property.

# **TOPOGRAPHY**

The ground is marked by generally low topographic relief varying between 600 and 1,200 feet above sea level. Heavy timber covers most of the property.

This overburden covers the property to a depth of about ten feet.

# OWNERSHIP

The property consists of 44 full and 7 fractional claims as listed in the attached Prospectus. Consolidated Cinola Mines Limited is the registered owner. The claims cover approximately 2,000 acres.

## PREVIOUS HISTORY

The property was staked in 1970 by a prospector, Efrem Specogna.

Geological and geochemical surveys were done by various companies, notably Kenneco, who in 1970 did soil geochemical surveys for mercury as well as a number of other elements.

Drilling was done by the following companies:

Year	Company	Number of Holes	Total Footage
1971	Kennco	2	180
1972	Cominco	9	1,640
1974 1975	Quintana	25	4,398
1977 1978	Cinola	21	5,663

In the drilling of the 57 holes completed by all parties for 11,881 ft, only 25 reached the main target horizon and only the 55th hole reached the highgrade intersection.

#### EXPLORATION GEOLOGY

# 1) Geological Setting

The Queen Charlotte Islands are situated off the west coast of British Columbia and are located in the Insular tectonic belt of the western Cordillera. Graham Island is the northernmost of the Queen Charlotte Islands and lies to the south of the Alaskan panhandle.

Pliocene age sediments of the Skonun Formation are the youngest in the area and are situated on the eastern side of Graham Island. They unconformably overlie Tertiary age (Eocene) volcanics and volcaniclastic sediments of the Masset Formation. Basement rocks to the south consist of Cretaceous sediments of the Queen Charlotte group which occur unconformably below the Tertiary volcanics.

The main structural feature of the area is the northwest trending and northeast dipping Sandspit fault zone which extends for a distance of over 100 miles. Approximately two miles of this fault lies within the property boundaries.

Economic interest in the area is centered on the presence of a rhyolitic volcanic unit(s) which flanks the Sandspit fault zone to the east. This belt is the focus for commercial grade gold mineralization which occurs in "stratiform" sheets (see Geol. Figs. 1 and 2).

# 2) Gold-(Mercury) Mineralization

The mineralization consists of micron-sized visible gold, 1%-3% pyrite/marcasite, and specks of (cinnabar?) mercury mineralization, associated with multiple minute fractures and veinlets consisting of chalcedonic-quartz and carbonate. Vugs are common. Hydrothermal alteration consists of argillic and silicic products. The host units appear to be felsic volcanics and volcaniclastic sediments of the Masset Formation. These consist in part of waterworked felsic breccias. Remnants of woody material are occasionally present - suggestive of a shallow volcanic-lacustrine interface. The units dip to the east at 15°-45°.

Gold mineralization (values <u>+</u> 0.05 ozs Au/ton) is widely distributed to the east of the Sandspit fault across thicknesses in excess of several hundred feet. Reference to Geol. Figs. 3, 4 and 5 illustrates the nature and distribution of gold mineralization with values in excess of 0.10 ozs/ton. It is apparent that low to moderate dipping mineralized sheets are present in the hangingwall area of the Sandspit fault. It is not known if these sheets are stratigraphic or structurally controlled at the present moment. Possibly both features are present.

# 3) Mercury Anomaly

This was detected by Kennco in 1971 and remains untested. It is over 1 mile long and 1/2 mile wide. It is a soil-silt anomaly greater than 1,000 ppb Hg. High points up to 10,000 ppb Hg are present (see Geol. Fig. 6). This surficial mercury anomaly almost certainly reflects shallow gold-mercury mineralization (see Figs. 5 and 6). It is a top-class target area. (Mercury migration is also known to occur from depths exceeding 2,000 feet vertically.)

# 4) Indicated Mineral Reserve

Current calculations based on previous drilling indicate  $\pm 250,000$  tons grading 0.46 ozs gold/ton. Cut-off grade used was 0.10 ozs gold/ton/across  $\pm 10$  feet. This material is located in three separate shoots (see Geol. Figs. 3, 4 and 5).

(Current value for gold @ \$250/oz.)

Indicated grade @ 0.46 oz/ton @ \$250 oz Au = \$115/ton.

This data indicates that commercial grade is available on the property and that prospects for more ore are very good.

(NOTE: Hole 78-6 cut 78.7 feet grading 0.86 ozs Au/ton, equivalent gross value of \$215/ton. [Cut-off grade @ 0.10 ozs = \$25/ton.]).

# 5) Required Mineral Reserve

Tentative estimate is for locating <u>+10</u> million tons @ 0.40 ozs Au/ton. This is equivalent to a \$1 billion deposit with a value of \$100/ton, a situation not improbable. (NOTE: Mean sized gold mine currently in production in Canada is 13 million tons grading 0.28 ozs/ton, with a value of \$70/ton, grossing \$900 million, and mined at a rate of 1,300 tons/day.)

# 6) Exploration Drilling Requirements

(See Geol. Fig. 7.) For convenience, the general target area of the mercury anomaly has been blocked out on a  $1,000' \times 1,000'$  grid. Data is specific to testing the minimum number of blocks in order to outline the estimated requirement of 10 million tons.

NOTE: 1 block @ 1,000' x 1,000' with 25 ft thickness of ore = 2.5 million tons

4 blocks @ 2.5 m/tons = +10 million tons

A proposed drill program can be laid out in three phases:

Phase 1 (Reconnaissance Mode). Vertical holes @ 100 meter (330') intervals to a depth of 1,000 feet.

One block - 16 holes @ 1,000' = 16,000 ft @ \$30/ft = +\$500,000.

Testing four blocks = 64 holes @ 1,000' = 64,000 ft @ \$30/ft = +\$2 million.

(Time period is two years [1979-80.])

<u>Phase 2</u> (Semi-detailed Mode). Vertical holes @ 50 meter (160') intervals to a depth of 1,000 ft.

One block = 16 holes @ 1,000' = 16,000 ft @ \$30/ft = +\$500,000.

Testing four blocks = 64 holes @ 1,000' = 64,000 ft @ \$30/ft = +\$2 million.

(Time period is two years [1980-81] if Phase 1 results warrant.)

Phase 3 (Detailed Completion). Vertical holes @ 50 meter (160') intervals to a depth of 1,000 feet where necessary.)

(As above in Phase 2; costs/timing dependent upon results.)

#### 7) Conclusions and Recommendations

- a) Hole 78-6 with 79 feet grading 0.86 ozs Au/ton probably represents the best gold intersection in Canada in over 30 years.
- Potential target area is very large and related to a soil mercury anomaly.
- c) Multiple "stratiform" sheets of gold-mercury mineralization occur in the hangingwall of the major Sandspit fault. Economic gold values have been indicated to date.
- d) Potential is very good for outlining a major deposit in a new area.

e) Possible similarities with certain gold properties in Nevada.

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f) This is a "high potential" target with commensurate high risk; however, it is less risky than the 1968 submission which led to the Rabbit Lake discovery.

Recommend acquisition as soon as feasible, with minimum funds of \$2 million available for Phase 1 reconnaissance drill program. Further work dependent upon results.