

## SUMMARY REPORT

## 1988 EXPLORATION PROGRAM - CHAPPELLE PROJECT

## TOODOGGONE RIVER AREA, B.C.

October 14, 1988

Summary

1988 exploration work on the Chappelle property included further assessment of B Zone and investigation of several other gold-silver zones within a 1 mile radius of the existing 100 tons per day mill in the western property area.

Diamond drilling yielded significant gold-silver values from shallow depths on the B Zone, from the southwest end of A Vein and from one hole on the New Zone. Interesting values were obtained from backhoe trenching north of the New Zone and surface exploration identified anomalous gold and silver values in the previously unknown Cirque zone.

While the potential for developing additional reserves at B Zone is considered limited, it is felt that mineable reserves may be present in unmined portions of A Vein and in the vicinity of the New Zone.

An exploratory program for 1989 is recommended at an estimated cost of \$250,000.

Introduction

Exploration work undertaken on the Chappelle property between early July and late September included three phases of diamond drilling totalling 7,455 feet, collection and analyses of nearly 500 soil and rock samples, electromagnetic and Induced Polarization surveys and backhoe trenching.

Diamond drilling further tested the B Zone and four other gold-silver zones in the western property area with varying degrees of success. Surface work was directed to areas around previously known mineralized areas and several untested areas of good geological potential.

A diagram of the western property area is appended and significant results obtained from the 1988 program are as follows:

### B Zone

The appended longitudinal projection of B Zone shows holes drilled between 1985 and 1988 and the outline of the mineralized shoot which contains an indicated 50,000 tons grading 0.587 oz/ton gold and 5.16 oz/ton silver (this figure incorporates a 6 ft. minimum mining width, 20% dilution at zero grade and a gold cut-off grade of 0.20 oz/ton).

Seven inclined holes drilled in July included five to test for a northeast extension of the main shoot at shallow depths. Little quartz vein material was intersected and only low gold and silver values were encountered.

Two short holes were drilled to evaluate the upper part of the main shoot; one of these encountered poor core recovery and the second intersected 7 ft. grading 0.162 oz/ton gold and 1.08 oz/ton silver including 1.8 ft. of 0.519 oz/ton gold and 3.44 oz/ton silver.

A trial Induced Polarization survey was unsuccessful in detecting the B Zone structure although it did indicate higher resistivities northwest of the zone. A detailed soil survey did reflect the main zone and also identified three areas with anomalous gold values in the northeast part of the grid. Two of these had been previously tested by drilling with no significant results and one area remains unexplained.

Drilling to date on B Zone indicates limited potential for additional tonnage of commercial grade. One deep drill hole below the 1650 metre level intersected interesting gold values and this area plus the zone of unexplained anomalous gold geochemistry could be considered for additional investigation in the future.

### C Vein

This structure, 3,300 ft. northwest of the camp (see diagram), was further investigated by detailed soil and rock sampling and an EM-34 survey prior to drilling 5 inclined holes to follow up on 2 holes drilled by DuPont in 1981.

C Vein is a strong quartz vein structure which has been traced on surface over a strike length of more than 300 feet. Soil and rock sampling showed anomalous gold and silver values for both the vein and hangingwall and the electromagnetic survey indicated high resistivities in the central part of the vein.

The 5 holes drilled intersected quartz veining over core lengths of up to 25 ft. but precious metals values were low, the best being 0.013 oz/ton gold and 2.04 oz/ton silver over 5 ft.

North Quartz Zone

This zone, 1,300 ft. northeast of and on trend with B Zone, was tested by one drill hole as a follow-up of the two holes drilled in 1987. This hole intersected a 5.9 ft. section grading 2.71% lead and 1.78% zinc with low gold and silver values.

New Zone

Mineralized float found late in the 1987 field season led to the discovery of several northeast-striking quartz veins 1,000 ft. east of the North Quartz Zone subsequent to contour soil sampling and hand trenching.

One of 5 holes drilled to test the apparent northeast-striking quartz veins intersected a 2.7 ft. quartz vein followed by 5 ft. of epidotized and silicified wallrock, both containing specks of visible gold and possible electrum and argentite. Assay values are as follows:

	<u>Interval(ft.)</u>	<u>Length(ft.)</u>	<u>Au(oz/ton)</u>	<u>Ag(oz/ton)</u>
M88-09	201.8-209.5	7.7	0.535	18.38

Base metals values were low.

The character and style of precious metals mineralization in this hole differs markedly from that seen elsewhere on the property.

The zone is structurally complex and while the same alteration styles were noted in other holes drilled, no commercial grades were encountered.

Similar quartz veining and epidotized and silicified volcanics were noted in one of the backhoe trenches - samples collected yielded 6.2% lead, 16.7% zinc and 4.8 oz/ton silver with only trace gold suggesting a telescoped vertical zoning for the New Zone.

Three backhoe trenches were excavated to further investigate an area of anomalous gold and silver and base metals values 600 ft. northwest of and 200 ft. vertically below the New Zone. Grab samples from a narrow quartz vein and altered wallrock from the

westernmost trench returned values of 0.082 and 0.117 oz/ton gold respectively.

### A Vein

An assessment of records from DuPont's mining of this zone between 1981 and 1983 indicated several areas of potential unmined reserves within and adjacent to the open pit and underground workings. One of these areas, at the southwestern limit of the vein, previously tested by 7 drill holes, was further assessed by two short holes which returned the following results:

<u>Hole No.</u>	<u>Interval (ft.)</u>	<u>Length (ft.)</u>	<u>Au (oz/ton)</u>	<u>Ag (oz/ton)</u>
M88-19	147.5-153.5	6.0	0.189	2.95
including	147.5-150.5	3.0	0.362	5.54
M88-20	221.0-228.3	7.3	0.132	2.13
including	221.0-223.0	2.0	0.174	6.94

These data, coupled with previous drill holes, indicate a possible 10,000 tons grading 0.247 oz/ton gold and 4.65 oz/ton silver over a 6 ft. width. Some of this could be extracted from surface; underground mining would involve 180 ft. of cross-cutting from the existing 5420 level.

### Other Zones

A number of soil and rock samples collected from the Cirque Zone, 3,000 ft. south of the New Zone, yielded anomalous gold and silver values. Quartz float in the central part of this zone returned values of 0.010 oz/ton gold and 4.2 oz/ton silver.

Limited sampling near the north end of the North Balck Gossan, 4 miles east of the camp, returned one 3000 ppb (0.087 oz/ton) gold value in soil.

Quartz float adjacent to the tractor road to C Vein yielded 114 ppb gold, 1.95% lead, 6% zinc and 525 ppm (15.2 oz/ton) silver.

### Conclusions and Recommendations

The potential for additional reserves at B Zone is considered to be limited but prospects for developing additional reserves at other zones in the western property area are considered good.

Additional drilling is recommended to further test the

New Zone at depth. This work should include additional assessment of the area of backhoe trenching to the north.

Further investigation of possible mineable reserves at the southwest end of A Vein is warranted. This work should include backhoe trenching to expose the vein on surface.

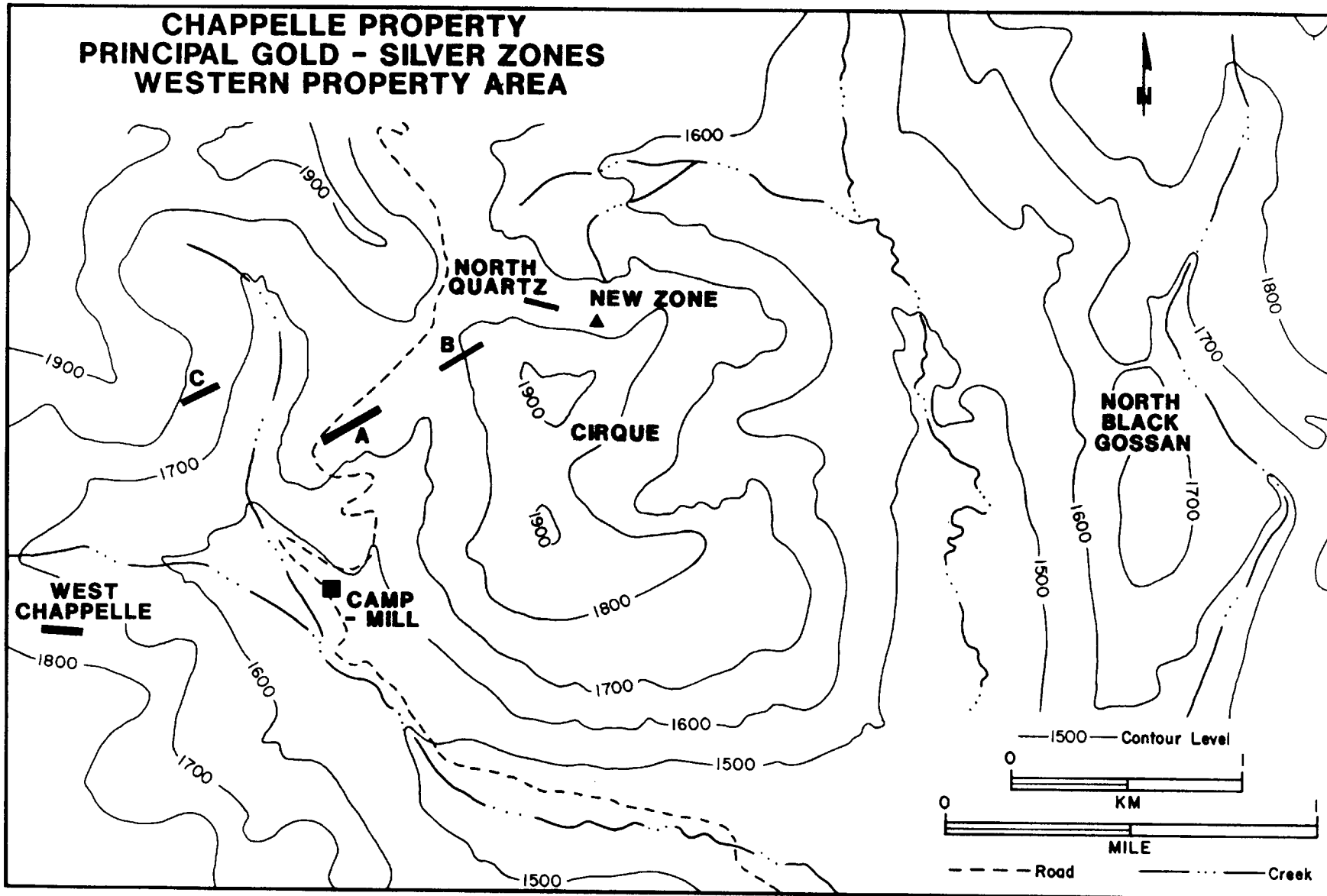
Further surface work is recommended northeast of B Zone and in the Cirque and North Black Gossan areas. It should be stressed that all work by the Joint Venture to date has been in the western property area only and areas of good geological potential exist in the eastern claims area.

A tentative budget for additional work is as follows:

Diamond Drilling - 3,500 ft.	\$160,000
Backhoe trenching	\$15,000
Sample analyses	\$10,000
Camp and support costs	\$25,000
Wages, fees	<u>\$40,000</u>
	\$250,000



**CHAPPELLE PROPERTY  
PRINCIPAL GOLD - SILVER ZONES  
WESTERN PROPERTY AREA**



# CHAPPELLE PROPERTY

## B ZONE - LONGITUDINAL PROJECTION

N 50° E

