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Ministry of Energy, Mines &	e Petroleum	Resources
Mining & Minerals Division		
BC Geological Survey		

Assessment Report Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geochemical Assessment	TOTAL COST: \$ 7,057.50
AUTHOR(S): J. T. Shearer, M.Sc., P.Geo.	SIGNATURE(S):
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):	YEAR OF WORK: 2021
TATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):	5864213
PROPERTY NAME: Zeballos South Gold Project	
CLAIM NAME(S) (on which the work was done): <u>1071605, 1071606, 10</u>	084729
COMMODITIES SOUGHT: Cu, Au	
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:	
NINING DIVISION: Alberni	NTS/BCGS: 092L, 092E
ATITUDE: <u>50</u> <sup>0</sup> <u>0</u> <u>'3.3</u> " LONGITUDE: <u>126</u> WNER(S): I) <u>1240089 BC Ltd</u>	<sup>o</sup> <u>50</u> <u>'58.23</u> " (at centre of work)
IAILING ADDRESS: Unit 5 - 2330 Tyner Street	
Port Coquitlam, BC V3B 2Z7	
DPERATOR(S) [who paid for the work]: I) Same	2)
AILING ADDRESS: Same	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure Lower Jurassic Bonanza Group calc-alkaline rocks; Triassic Par	, alteration, mineralization, size and attitude): rson Bay limestone; Jurassic Island Plutonic Suite granodiorite;
Econo to Oligocono Mt Washington Plutonic Suite diorite: Col	d quartz veine skarn

#### REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

5079, 12772, 32298

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres) Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for	.)		
Soll			
Silt			
Rock /D		1011685	705750
Other			
DRILLING (total metres; number of holes, siz	е)		
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)	c		
(scale, area)			
Road local access (kilometre	c)/trail		
Trench (metree)			
linderground dev (metres)			
Othor			
		TOTAL COST:	\$ 7,057.50

# GEOCHEMICAL ASSESSMENT REPORT on the ZEBALLOS SOUTH GOLD PROJECT

Alberni Mining Division, British Columbia, Canada Latitude: 50°0'5.9"N; Longitude: 126°49'24.0"W UTM Zone 09 (NAD83) 5541161N 655364E EVENT # 5864213

For

1240089 BC Ltd.

By

J. T. Shearer, M.Sc., P.Geo. (BC & Ontario) FSEG Unit 5 – 2330 Tyner Street Port Coquitlam, BC V3C 2Z1 Phone: 604-970-6402

December 27, 2021

Work Completed Between November 4, 2021 and December 27, 2021

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#### SUMMARY

The Zeballos South Gold Project mineral claims cover an area of 623.95 ha and are situated about 2 km north of the village of Zeballos on the west coast of the Vancouver Island in the Alberni Mining District.

The property is accessed by travelling north on Highway 19 about 140 km past the city of Campbell River to the Zeballos-Steel road intersection. From there on a well-maintained 40 km gravel road can be followed south to the village of Zeballos.

The Zeballos South Gold mineral property consists of three mineral claims 100% owned by 1240089 BC Ltd. It is situated on the eastern bank of the Zeballos River and straddles some of its eastern tributaries - the Golden Gate and Hidden Creek. The property lies within the Vancouver Island's mountain range and stretches from sea level to over 1,200 m in elevation.

Rocks underlying the property are Lower Jurassic Bonanza Group volcanic rocks conformably underlain by Lower Triassic to Upper Triassic Vancouver Group - Parson Bay Formation composed of limestone, slate, siltstone and argillite. Early Jurassic to Middle Jurassic Island Plutonic Suite granodiorite has intruded all older rocks. Quartz diorite intrusive rocks of the Eocene to Oligocene Catface Plutonic suite are spatially related with most of the areas gold-quartz veins. Zeballos mining camp's mineral deposits are of the intrusion related gold type and also magnetite skarns.

The Zeballos South Gold Project encompasses five past producing gold mines and a mineral prospects. Mineral production from these past producers totaled 54,307 ounces gold, 18,609 ounces silver, 20,493 pounds copper, and 17,612 pounds of lead. Most of the production came from the Gold Field and Roper mines, where a historical estimation of the unmined resource stands at 220,429 tonnes grading 10.7 grams per tonne gold in quartz-vein deposits (historic estimates).

1970s and 1980s exploration programs identified a gold-copper-mercury geochemical and a coincident geophysical anomaly at the headwaters of Hidden Valley Creek and Golden Gate Creek.

Work in 2021 focussed on rock collection and geochemical characterization along the main access road. Some of the outlying showings, such as the Beano, are deemed to be priority gold targets.

Respectfully submitted

J. T. Shearer, M.Sc., P.Geo. (BC & Ontario) FSEG December 27, 2021



Geochemical Assessment Report on the Zeballos South Gold Project December 27, 2021

Figure 1 Location Map

### INTRODUCTION

The Zeballos South Gold Lake Project of 1240089 BC Ltd. comprise 3 claims totalling 623.06 hectares.

#### **Terms of Reference**

J. Shearer was engaged by 1240089 BC Ltd. to provide a technical and limited fieldwork report that compiles all the known data on the Zeballos South property near Zeballos and recommends a program to further advance to property.

The author has compiled this report with all due care and reviewed all available reports. It is believed that the information contained within this report is accurate and reliable. All previous work programs on the property have been undertaken by experienced exploration personnel and the referenced reports cited were written by competent professionals. The author has assumed that all the information and technical documents listed in the References section of this report are accurate and complete in all material aspects. While the author carefully reviewed all the available information, the author cannot guarantee its accuracy and completeness.

The author has relied on the documents listed in the References section for the information in this report. The results and opinions outlined in this report are dependent on the aforementioned information being current, accurate and complete as of the date of this report and it has been assumed that no information has been withheld which would impact the conclusions or recommendations.

#### **Qualifications of Author**

J. T. Shearer is an independent economic geologist with extensive experience in mineral exploration and industrial mineral production throughout North America. He has conducted regional exploration for industrial minerals and copper/gold in the Zeballos-Fair Harbour area in the past. The Author of this report does not have any material interest in 1240089 BC Ltd., the Vendor nor in mineral asset considerations in this report.

## PROPERTY DESCRIPTION and LOCATION

The Zeballos Gold property consists of three mineral claims that cover 623.06 hectares. The claims are 100% owned by 1240089 BC Ltd. and are centered at 50° 0′ 5.9" N and 126° 49' 24.0" W. The mineral property is covered by the BCGS 092L006, 092L007, 092E096 and 092E097 maps.

Table 1 Claim List					
Title #	Claim Name	Area (ha)	Issue Date	Good To Date	Owner
1071605	Golden Gate 2	62.32	October 4, 2019	June 15, 2023	1240089 BC Ltd.
1071606	Golden Gate	519.22	October 4, 2019	June 15, 2023	1240089 BC Ltd.
1084729	Zeb Golden Gate 3	41.53	October 13, 2019	June 15, 2023	1240089 BC Ltd.
Total ha 623.06					

The Zeballos Gold mineral claims partially overlap the following Crown Grant mineral lots: Answer No.5, Answer No. 1, Blue Ox No.1, Prosperity No.3, J, St. George, Flobald, Big Apple Fraction.

Following revisions to the Mineral Tenures Act on July 1, 2012, claims bear the burden of \$5 per hectare for the initial two years, \$10 per hectare for year three and four, \$15 per hectare for year five and six and \$20 per hectare each year thereafter.

Initial First Nations Consultations have not been undertaken.

However, the First Nations – Resource Industry landscape is rapidly changing. The Provincial government is moving rapidly to implement the "United Nations Declaration on the Rights of Indigenous Peoples" (UNRIP). At the present time, the clarity and certainty moving forward with local First Nations is lacking.

An Archaeological Overview Assessment (AOA) has not been completed. Permitting for operating in BC is currently in flux due to the implementation of UNRIP. Personal relationships are a must in moving forward along with proponent consultation.



Figure 2 Claim Map

## ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE and PHYSIOGRAPHY

The Zeballos Gold mineral property is located on the west coast of the Vancouver Island in British Columbia, Canada. It is within the Alberni Mining Division and is covered by NTS Map sheet 092E and 092L.

The property is accessed by travelling north on Highway 19 about 140 km past the city of Campbell River to the Zeballos-Steel road intersection. From there on a well-maintained all season 40 km gravel road can be followed to the village of Zeballos.

The Answer and Tagore mines could be accessed from the main Zeballos road. The Golden Gate mine can be accessed by hiking through the lush temperate rainforest. The Beano and Gold Field mines can be accessed by travelling on logging roads.

The Zeballos Gold Project is about 2 km north of the 150-200 inhabitants village of Zeballos. The village sits at the head of Zeballos Inlet, gateway to Nootka Sound, world-famous for salmon fishing and kayaking opportunities. The inlet was named by Captain Alejandro Malaspina in 1792 after one of his lieutenants, Ciriaco Cevallos.

The mineral project covers ground that stretches from sea level to 1,221 m in elevation (Mt. Beano). Physiography is rugged with hillsides being steep and bluffy. At higher elevations creeks are flowing through steep canyons and present numerous waterfalls. The Zeballos project encompasses the Hidden Valley Creek and the Golden Gate Creek as eastern tributaries of the Zeballos River which flows into the Pacific Ocean at the Zeballos Village. The project area also encompasses the headwaters of the Spud Creek and Bingo Creek.

The climate is wet and mild. Most of the 5 meters of average annual precipitation occurs from October through May. Snowfall is never more than a few inches at the beach but is heavier at higher elevations.

Logging is the prominent industrial activity in the area and parts of the project area had also been recently logged. Fishing, fish processing and tourism are also mainstays of the local economy.

Limited accommodation, food and gas is available in the Village of Zeballos.

#### HISTORY

According to John S. Stevenson (1950) small amounts of placer gold were found on the Zeballos River as early as 1907 but the staking of the first gold-quartz vein (Zeballos Gold Project's Tagore mine) happened only in 1924. In 1926 the King Midas was staked and by 1929 forty claims had been staked in the valley. Tagore made the camp's first ore shipment during the same year.

Small pockets of coarse placer gold had been found at the mouth of the Spud Creek and in 1933 rich gold-quartz floats were also identified. The floats were followed upstream and in 1935 the Zeballos Gold Project's Gold Field veins were identified.

Most of the gold mines closed during the WWII and the last mine to operate was the Privateer which closed gates in 1948. The Ford iron ore mine (092L 028) operated in the 1962 to 1969 period; it mined a magnetite skarn.

A detailed history of mining, development and exploration as it relates to the Zeballos Gold Project could be found in Assessment Report 32298 (2011). It should be noted that a 1974 soil sampling and a subsequent 1984 VLFEM survey of a 600 ft by 1,200 ft area (the "B" zone) located at the Golden Gate Creek and Hidden Valley Creek headwaters resulted in the identification of a gold-copper geochemical anomaly and of a coincident VLF-EM geophysical conductor.

## **GEOLOGY and MINERALIZATION**

#### **Regional Setting**

The study area is part of the Insular belt of the Canadian Cordillera which is comprised of a number of accreted volcanic and sedimentary terranes.

The Zeballos gold camp is underlain by a Lower Jurassic Bonanza Group Island arc sequence of basaltic to rhyolitic volcanic rocks. Conformably underlying the Bonanza rocks are limestone and limy clastics of the Quatsino and Parson Bay formations, and the tholeiitic basalts of the Karmutsen Formation, all belonging to the Upper Triassic Vancouver Group. Dioritic to granodioritic Jurassic plutons of the Zeballos intrusion phase of the Island Plutonic Suite have intruded all older rocks. The Eocene Zeballos stock, a quartz diorite phase of the Catface Intrusions, is spatially related to the areas gold-quartz veins. Bedded rocks are predominantly northwest striking, southwest dipping, and anticlinally folded about a northwest axis.



Figure 3 Geology Map

The Zeballos mining camp's mineralization is related to the emplacement of the Tertiary Catface intrusive rocks. The camp's mineralization is considered to be of the intrusion related gold mineralization type.

Recorded production for the camp totals 9,465 kilograms gold and 4,119 kilograms silver, from 652,000 tonnes of ore mined. Most of the production came from the Spud Valley and Privateer deposits.

Stevenson (1950): "The mineral deposits of the area include gold-bearing quartz veins and high temperature replacement deposits, which contain copper and iron, and one gold-bearing replacement deposit . The gold-quartz

veins are economically the most important. Magnesian limestone in the area is potentially of economic importance."

Minfile (092L 005) notes that: "In the Zeballos gold camp, generally narrow (10 to 30 centimetres) quartz-calcite veins, trending north or east (Fieldwork 1983, page 230) cut all rock types. Vein mineralogy includes pyrite, sphalerite, galena, chalcopyrite and locally arsenopyrite."

Stevenson (1950) considers that " fractures and consequently veins formed under tension are the most favorable for ore, those veins or parts of veins that strike close to north 62 degrees east and are vertical are the most likely to contain the best oreshoots."

Host rock alteration around the veins is dependent upon the type of enclosing rocks. Granite and quartz diorite are altered to a silvery white rock with feldspar plagioclase completely sericitized and biotite and hornblende destroyed and replaced by chlorite. The lime-silicate rocks are only slightly altered along the vein walls. The feldspar tuff, green volcanic tuff and lava have been altered for distances up to 6 inches from the vein shear to a light buff dense rock (sericite + carbonate) that contains cubes of pyrite.

The sequence of mineralization is considered to be pyrrhotite, arsenopyrite, pyrite, sphalerite, chalcopyrite, galena and gold. In the quartz-sulphide ore the amount of gold is not only proportional to the sulphide content, but is also dependent on the presence of sphalerite and galena. Quartz veins that contain either pyrite or arsenopyrite only do not as rule contain much gold.

#### **Property Geology and Mineralization**

Rocks underlying the property are represented by the Lower Jurassic Bonanza Group calc-alkaline volcanic rocks conformably underlain by Lower Triassic to Upper Triassic Vancouver Group - Parson Bay Formation composed of limestone, slate, siltstone and argillite. Early Jurassic to Middle Jurassic Island Plutonic Suite represented by granodiorite had intruded all older rocks. Quartz diorite intrusive rocks of the Eocene to Oligocene Mt. Washington Plutonic suite are spatially related with most of the areas gold-quartz veins.

The Zeballos Gold Project encompasses five past producing gold mines i.e. Tagore (092L 006), Golden Gate (092L 005), Gold Field (092L 211), Roper (092L 013), Beano (092E 002), and a mineral prospect - Answer 2 (092E 023). Mineral production from these past producers totaled 54,307 ounces gold, 18,609 ounces silver, 20,493 pounds copper, and 17,612 pounds of lead. Most of the production came from the adjacent Gold Field and Roper mines, where a historical estimation of the unmined resource stands at 220,429 tonnes grading 10.7 grams per tonne gold in quartz-vein deposits. All these deposits (except the Beano skarn) are of the gold vein deposit type and are hosted by the Bonanza group volcanic rocks within small shear zones and/or the Parsons Bay limestones. Vein mineralization consist of quartz, calcite, pyrrhotite, chalcopyrite, galena, pyrite and free gold. The skarn mineralization at Beano is hosted by an actinolite altered limestone; its mineralization consists of three different styles: 1) zones of quartz-calcite-pyrrhotite stringers 2) disseminated pyrrhotite 3) lenses of massive pyrrhotite measuring to 0.3 by 1.2 metres, as en echelon replacement of limestone along fractures. A detailed description of the geology and mineralization for each of these mines could be found in the 2011 technical report (AR32298).

The auriferous band of limestone outcropping at Beano is expected to continue undercover (through the creeks' headwaters geochemically anomalous "B" area) towards the Prosperity copper showing (092L 007) located on Hidden Valley Creek where another package of 600 ft of limestone and lime-silicate rocks outcrops and is sandwiched in between dark green andesitic volcanics. On the same Hidden Valley Creek mineralized actinolitic float containing pyrrhotite and chalcopyrite was noted near an old trail (AR5079).



Figure 4 Google Image showing waypoints



Figure 5a Showing Structural Linears



Figure 5b Showing Structural Linears



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Figure 5d Showing Structural Linears





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Figure 5g Showing Structural Linears



Figure 5h Showing Structural Linears



Figure 5i Showing Structural Linears Beano Area

### **EXPLORATION 2021**

Work in 2021 focussed on rock sampling and geochemical characterization from exposures along the main western access rout. Sample descriptions are contained in Appendix III and Plotted on Figure 6.

Assays were conducted by using an XRF Unit factory calibrated (Cert No. 0154-0557-1) on October 30, 2013, Instrument #540557 Type Olympus DPO-2000 Delta Premium. The instrument was calibrated using Alloy Certified reference materials by ARM1 and NIS5 standards. Only certified operators were employed and that were experienced in XRF assay procedures. Read times were 120 seconds or greater.

A fracture/lineament study was also conducted since many of the gold bearing veins are controlled by local structures.

The "Tagore" rock cut is near WP256. The Tagore occurrence consists of a locally anastomosing quartz (plus or minus calcite) vein containing variable amounts of pyrrhotite, sphalerite, chalcopyrite, galena, pyrite, free gold and an unidentified grey mineral. The vein, up to 38 centimetres wide but locally represented only by a barren, tight fissure trends southeast and dips vertically. It has been traced for 15 metres, and is hosted in Bonanza Group fine-grained green banded tuff with minor interbedded crystalline limestone striking 080 degrees and dipping 80 degrees north. Prior to the introduction of mineralization the volcanic assemblage was altered to garnet, epidote and chlorite, while limy beds were altered to garnet, diopside, quartz, calcite, albite and apatite, plus or minus sphalerite.

Several dykes and irregular bodies ranging from quartz gabbro with abundant magnetite to light grey micropegmatite are reported to occur (Bulletin 27, page 51). Lamprophyre dykes are also present. Where the veins cut through a 2.0 metre limestone band the fissure continues but the veining is absent. Similarly, where the vein cuts a 2.0 metre wide northeast trending diorite dyke, no mineralization is present.

In 1929, 1.8 tonnes of high grade ore were shipped of which 1371 grams of gold were recovered. From 1930 to 1939, 14 tonnes of ore was shipped from which 1245 grams of gold, 2022 grams of silver with 23 kilograms of copper and 20 kilograms of lead were recovered.

A sample of very rusty (WP256/257) pyritic vein material was collected near where the reported Tagore occurrence is located. Additional prospecting is warranted in this area of abundant outcrop.

An inspection of Figure 5a to 5i, clearly show a dominant trend of linears in a westerly to northwesterly direction. Concentrated prospecting along these major linears in the vicinity to the west of the Tagore showing is recommended.

Much of the rock encountered along the main access road south of the Tagore showing is exemplified by samples ZS-1 to ZS-3 and ZS-9+10 as epidotized and chloritic fine-grained green basalt to andesite. Samples ZS-2+3 are highly silicified. Intrusives are shown as ZS-4 and ZS-8, carbonate and potassium are both elevated.

The only limestone sample, ZS-5, is very pure at 55.05% CaO. Calc-silicates are common as float.

The Golden Gate gold occurrence was not visited but is located to the east of the Tagore Zone, see Figure 7.

The Golden Gate (Shaft) vein, striking 340 to 350 degrees and dipping 70 degrees east, follows a shear zone in massive Bonanza andesite cut by numerous fine-grained dikes of gabbro, presumably associated with nearby Jurassic Island Plutonic Suite and the Eocene Zeballos stock. The shear zone is only a few centimetres wider than the vein, which is lenticular and ranges in width from 2.5 to 45 centimetres with an average width of 12.5 centimetres. Vein mineralogy includes pyrite, pyrrhotite and lesser amounts of chalcopyrite, sphalerite and galena

in quartz gangue. Usually sulphides make up a few per cent of vein material but locally this can go as high as 75 per cent. Native gold is reported to be associated with sulphides and in the quartz gouge.

Another vein, referred to as the Campbell vein, is reported to be located 6 metres northeast of the shaft. This vein strikes 260 degrees with a 78-degree north dip and is comprised of pyrrhotite, pyrite, sphalerite, chalcopyrite and galena in crushed, leached talcose gouge, quartz and calcite. The vein has been traced for approximately 168 metres along strike.

In 1982, six underground chip samples from various locations along the vein yielded an average of 6.7 grams per tonne gold and 9.1 grams per tonne silver over an average width of 8.75 centimetres (Assessment Report 12863).

In 1983, diamond drilling encountered a 9.8-metre intercept of 9.6 grams per tonne gold (diamond-drill hole #5) and a 1.5-metre section assaying 135.7 grams per tonne gold and 44.2 grams per tonne silver (George Cross Newsletter #191,#192, 1983; Northern Miner Oct.6, 1983). Also at this time, four grab samples from the central trench yielded an average of 20.5 grams per tonne gold and 11.3 grams per tonne silver, whereas a 0.45-metre chip sample (9270) taken 3.7 metres north of the trench assayed 55.8 grams per tonne gold and 23.6 grams per tonne silver (Assessment Report 12863).

In 1940, a shipment of high-grade sorted ore produced 373 grams of gold, 156 grams of silver with 44 kilograms of copper and 39 kilograms of lead.

The area has been explored since the 1930s with various trenches, at least two shafts and an adit, located at approximately 224 metres elevation; a 37.5-metre crosscut and a 48.3-metre drift being developed during 1937 through 1946. Minor production occurred in 1939 and 1940.

Two other significant gold occurrences are located in the eastern part of the claim, the Beano and Friend.

Locally, white dacite and andesite tuffs of the Bonanza Group are interbedded with a 10-metre wide band of limestone near a small Eocene stock. The limestone has been actinolite-altered and contains pyrrhotite plus or minus chalcopyrite.

Three styles of mineralization are recognized at Beano: 1) zones of quartz-calcite-pyrrhotite stringers; 2) disseminated pyrrhotite and 3) lenses of massive pyrrhotite measuring to 0.3 by 1.2 metres, as en echelon replacement of limestone along fractures with associated actinolite and minor chalcopyrite. Native gold, up to 50 microns in size and averaging 20 microns, has been identified in polished sections, where it has replaced pyrrhotite and chalcopyrite, and is associated with an un-identified white mineral (tetradymite?).

There are two sets of workings. The lower one, in the Bingo (Beano) Creek canyon at an elevation of 710 metres, has two short adits, ranging from 2.0 to 2.5 metres in length, and two small opencuts, exposing an area of 25 metres. The upper showing, above the creek canyon wall at elevation 800 metres, was explored by four opencuts. The mineralization has been traced over a strike length of 125 metres, a vertical range of approximately 80 metres and widths up to 7 metres. The mineralized zone is reported to pinch to the southeast and at depth.

In 1938, samples of massive pyrrhotite in the area have assayed up to 321.7 grams per tonne gold and 6.8 grams per tonne silver over narrow widths (Bulletin 27 p.138).

In 1972, samples are reported to have averaged 20.5 grams per tonne gold over 8.7 metres (Property File - J.D. Mason [1973-09-10]: New Taku Mines Ltd. - 1972 Annual Report). Other chip samples taken at this time yielded 148.8 grams per tonne gold over 1.8 metres (sample 1854) from the No. 1 opencut, 48.6 grams per tonne gold over 0.6 metre of massive pyrrhotite (sample 1862) from the north adit and 46.5 grams per tonne gold over 1.8 metres (sample 1862) from the north adit and 46.5 grams per tonne gold over 1.8 metres (sample 1863) from the north face of the south adit (Property File - New Taku Mines Ltd. [1972-08-22]: Sample Descriptions, Assays and Sketch Map - Beano).

In 1983, shallow diamond drilling near the No. 3 and 4 cuts yielded intercepts of 13.6 grams per tonne gold over 3.2 metres in hole DD3, 19.7 grams per tonne gold over 2.6 metres in hole DD4, 14.3 grams per tonne gold over 1.9 metres in hole DD5 and 21.7 grams per tonne gold over 1.0 metre in hole DD6 (Assessment Report 12573).

An inspection of Figure 5h and 5i at the Beano Area illustrates the strong north-south orientation of the underlying structures.



Figure 6 Sample Locations and Results

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### CONCLUSIONS

The Zeballos Gold Project is located in a favorable geological setting represented by the presence of the productive Catface intrusion and/or in the proximity to it.

An analysis of the camp's mines and mineralization indicate that the greatest potential for economic mineralization seems to be within 1,000 m of large intrusive bodies i.e. the Catface intrusion which not only that hosts most of the camps gold mines, but also provided the gold-base metals mineralization and fluids that permeated the adjacent Bonanza group rocks and the Parson Bay limestone/lime-silicates rocks. The eastern part of the Zeballos gold project overlaps the western side of the Mt. Washington intrusion while the majority of the project area is located within the aforementioned 'fertile' zone i.e. being within 1,000 m of the intrusion, which makes the project prospective for hosting economic mineralization.

Respectfully submitted

J. T. Shearer, M.Sc., P.Geo. (BC & Ontario) FSEG December 27, 2021

## RECOMMENDATIONS

The limit of mapping indicates that large areas within the company's claims have not been mapped. These areas require geological mapping possibly augmented by a few widely scattered test pits in areas of no outcrop.

Senior Geologist-18 days @ \$800/day		Without GST \$14,400
8 days Reporting @ \$800/day		\$6,400
Helper for sample coordination 20 days @ \$300/day		\$6,000
	Subtotal	\$26,800
Transportation		
Truck- 20 days @ \$150/day		\$3,000
Fuel		\$1,000
Side-by-side & Trailer- 20 days@ \$150/day		\$3,000
Food - 40-man days & meals @ \$50 per man day		\$2,000
Drill Contract		\$80,000
Camp & Hotel		\$4,000
XRF Analysis and Lab Assays		\$10,000
Contingency		\$10,000
	Subtotal	\$113,000

Total without GST \$139,800

Phase I: mapping, soil sampling, IP/Resistivity, trenching, drilling.

1) Soil sampling, 10 md @ \$175/md.	\$ 1,750.00
250 samples (Au, As) @ \$12.00/sample	3,000.00
<ol> <li>Grid preparation, surveying &amp; cutting, 8 line-km, 32 md @ \$175/md.</li> </ol>	5,600.00
<ol> <li>IP/Resistivity, 8 line-km, @ \$1350/line-km</li> </ol>	25,800.00
<ol> <li>Geological mapping, 12 md @ \$300/md</li> </ol>	3,600.00
5) Trenching (525m) 42 hr @ \$85/hr	3,570.00
Mob/Demob	500.00
5) Drilling 1000 m @ \$120/m	120,000.00
Mob/Demob	6,000.00
<ol><li>Site supervision, geology, sampling/drilling and trenching program</li></ol>	
Geologist, 40 md @ \$300/md.	12,000.00
Assistant, 40 md @ \$175/md.	7,000.00
1000 assays @ \$1650/sample (Au,As,Sb)	16,500.00
3) Support Costs	
- room and board, 170 md @ \$50/md	8,500.00
- vehicle, 1.5 months @ \$1,500/mo	2,500.00
- fuel	1,000.00
- airfares, 5 x \$400	2,000.00
<ul> <li>consumables &amp; equipment rental</li> </ul>	2,000.00
<ul> <li>communications &amp; freight</li> </ul>	1,000.00
<ol> <li>Engineering, drafting, reporting</li> </ol>	10,000.00
10) Grid preparation, survey, 5 line-km, 10 md @ \$175/md	1,750.00
11) Soil sampling, 10 md @ \$175/md	1,750.00

Geochemical Assessment Report on the Zeballos South Gold Project December 27, 2021

100 samples (Au.As) @ \$12.00/sample	1.200.00
12) Geology, 5 md @ \$300/md	1,500.00
Prospecting, 5md @ \$175/md	875.00
Assays, 100 (Au,As,Sb) @ \$16.50/sample	1,650.00
13) Support Costs	
- room and board, 30 md @ \$50/md	1,500.00
- vehicle, 10 md @ \$70/d	700.00
<ul> <li>consumables &amp; equipment rental</li> </ul>	200.00
<ul> <li>communications &amp; freight</li> </ul>	100.00
14) Engineering, drafting, reporting	<u>\$ 1,500.00</u>
TOTAL PHASE I	\$ 245,045.00

General Plans for the property Phase II for 2022:

(a) Geological mapping and assays	\$25,000
(b) Percussion Drilling (all in cost) and Supervision	50,000
(c) First Nation Liaison and Permitting	10,000
(d) Investigate availability and cost of 2 stage, 2 product flotation mill, nominal 125 tonnes per day	
size and Tailings disposal, metallurgy	20,000
(e) Build 300m haul road	20,000
Total	\$125,000

Respectfully submitted

Thearer

J. T. Shearer, M.Sc., P.Geo. (BC & Ontario) FSEG December 27, 2021

#### REFERENCES

Gold Mineralization and Geology in the Zeballos area, Nootka Sound, by Marshall D. et al, in BCGS Geological Fieldwork 2004, Paper 2005-1

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An Update on the Mineral Deposit Potential of the Nootka Sound Region by et al, in Round Up 2005 Poster

Minfile 092E 002, 092E 023, 092L 005, 092L 006, 092L 007, 092L 013, 092L 211;

#### Oancea, D. V. 2013:

Prospecting and Geochemistry on the Zeballos Property for North Bay Resources, dated September 2013, AR 34249

2014:

Geochemical Survey on the Zeballos Gold Property, dated December 29, 2014, 26pp AR 35166

2016:

Prospecting and Geochemistry on the Zeballos Property for North Bay Resources, dated June 2016, 34pp, AR 36167

2018: Geochemical Survey on the Zeballos Gold Property, dated January 11, 2018, AR 37204

#### Price, B.J., 1974:

Geological and Geochemical Report on the Banko and Zeb Claims for Canadian Superior Exploration Ltd., dated June 18, 1974, 64pp, AR 05079

#### 1984:

Geophysical Report on the Beano Claim Group, for Billikin Resources, dated July 30, 1984, 28pp, AR12772

#### Simmons, B. P.Eng, 2011:

Technical Report on the Zeballos Gold Project for North Bay Resources, dated June 24, 2011, 69pp, AR 32298

#### Stevenson, John S., 1950:

Geology and Mineral Deposits of the Zeballos Mining Camp, British Columbia, 1950 Bulletin No. 27, British Columbia Department of Mines;

**APPENDIX I** 

# STATEMENT of QUALIFICATIONS

DECEMBER 27, 2021

## STATEMENT of QUALIFICATIONS

I, Johan T. Shearer of Unit 5 – 2330 Tyner Street, in the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

- 1. I graduated in Honours Geology (B.Sc., 1973) from the University of British Columbia and the University of London, Imperial College, (M.Sc. 1977).
- I have practiced my profession as an Exploration Geologist continuously since graduation and have been employed by such mining companies as McIntyre Mines Ltd., J.C. Stephen Explorations Ltd., Carolin Mines Ltd. and TRM Engineering Ltd. I am presently employed by Homegold Resources Ltd.
- 3. I am a fellow of the Geological Association of Canada (Fellow No. F439). I am also a member of the Canadian Institute of Mining and Metallurgy, the Geological Society of London and the APO (Ontario). I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (P.Geo., Member Number 19,279).
- 4. I am an independent consulting geologist employed since December 1986 by Homegold Resources Ltd. At Unit #5 2330 Tyner Street, Port Coquitlam, British Columbia.
- 5. I am the author of the report entitled "Geochemical Assessment Report on the Zeballos South Project" dated December 27, 2021.
- 6. I have worked on the property on November 4 and 5, 2021. I have carried out mapping and sample collection and am familiar with the regional geology and geology of nearby properties. I have become familiar with the previous work conducted on the Zeballos South Project by examining in detail the available reports and maps and have discussed previous work with persons knowledgeable of the area.

Dated at Port Coquitlam, British Columbia, this 27<sup>th</sup> day of December 2021.

J.T. Shearer, M.Sc., P. Geo. (BC & Ontario)

**APPENDIX II** 

STATEMENT of COSTS

DECEMBER 27, 2021

# STATEMENT of WORK Zeballos South Project

Wages & Benefits	Without GST
J. T. Shearer, M.Sc., P.Geo; 1.5 days @ \$800/day, Nov. 4 & 5, 2021	\$1,200.00
Subtotal	\$1,200.00
Transportation	
Truck - Fully equipped 4x4 truck, 1.5 days @ \$125/day	187.50
Fuel	450.00
Airphoto – Structural Analysis	1,600.00
Hotel, 1 night @ \$120/night each	120.00
Meals & Food	200.00
Field Supplies – Sat Phone, GPS, Radios	100.00
XRF Assays & Operator	450.00
Data Compilation and Mapping	800.00
Report Preparation	1,600.00
Word Processing	350.00
Subtotal	\$5,875.50
Grand total	\$ 7,057.50

 Event #
 5864213

 Date
 December 27, 2021

 Amount Filed
 \$ 7,057.50

 PAC
 \$ 3,022.93

 Total Filed
 \$ 10,080.43

**APPENDIX III** 

**SAMPLE LOCATIONS and RESULTS** 

DECEMBER 27, 2021

XRF Zeballos South

WP	Sample #	Al	Si	Са	Fe	К	Description
252	ZS-1	4.72	15.38	4.58	4.91		Epidotized dark green basalt
253	ZS-2	3.96	13.13	4.76	8.86		Green basalt
253	ZS-3	4.26	26.83	0.9164	6.14		Chloritized basalt
254	ZS-4	6.63	27.34	5.29	1.85	1.95	Quartz diorite sparse mafics
255	ZS-5	0.2258	0.6460	55.05	0.0601		Limestone lens, very pure, Quatsino Formation
255	ZS-6	6.69	20.914	4.11	3.16		Light grey – very fine grained, hornfelsed shale
256	ZS-7	2.16	15.74	0.2306	9.29		Very rusty and pyritized zone, elevated
							Cu – 212ppm, punky
256	ZS-8	9.05	17.78	12.38	5.67		Hornblende diorite, carbonatized
257	ZS-9	3.68	13.05	4.44	4.90	1.40	Chloritized basalt
257	ZS-10	5.42	14.79	5.16	9.81		Basalt

Waypoints Zeballos South 2021

WP249	N49 59.713 W126 51.158	46 m
WP250	N49 59.768 W126 51.192	44 m
WP251	N49 59.866 W126 51.106	46 m
WP252	N49 59.700 W126 51.003	50 m
WP253	N50 00.054 W126 50.979	54 m
WP254	N50 00.149 W126 50.947	53 m
WP255	N50 00.234 W126 50.856	57 m
WP256	N50 00.317 W126 50.843	62 m
WP257	N50 00.586 W126 50.880	61 m

**APPENDIX IV** 

# **ASSAY RESULTS**

DECEMBER 27, 2021

### Zeballos South 2021

		All result	s in %													
Sample #	Mg	Mg +/-	Al	Al +/-	Si	Si +/-	Р	P +/-	S	S +/-	Cl	Cl +/-	К	K +/-	Ca	Ca +/-
ZS-1	ND		4.72	0.08	15.38	0.13	0.6993	0.0267	0.1081	0.0038	ND		1.329	0.0117	4.5762	0.0366
ZS-2	3.01	0.29	3.96	0.06	13.13	0.1	0.3048	0.0183	0.3662	0.0045	ND		0.3425	0.004	4.7647	0.0358
ZS-3	ND		4.27	0.06	26.83	0.15	0.7039	0.021	0.0656	0.0028	ND		0.7164	0.0057	0.9164	0.0074
ZS-4	ND		6.63	0.07	27.34	0.15	0.4902	0.0235	0.1352	0.0035	ND		1.9459	0.0118	5.2908	0.0292
ZS-5	ND		0.2258	0.0438	0.646	0.0139	0.1187	0.0254	0.0215	0.0023	ND		ND		55.05	0.38
ZS-6	ND		6.69	0.08	20.91	0.14	0.4864	0.0256	0.0284	0.0035	ND		0.1403	0.0041	4.1105	0.0288
ZS-7	ND		2.16	0.05	15.74	0.13	0.6021	0.0206	0.1929	0.0038	ND		0.0258	0.0027	0.2306	0.0039
ZS-8	ND		9.05	0.09	17.78	0.11	0.1855	0.0226	0.0234	0.0028	ND		ND		12.38	0.07
ZS-9	ND		3.68	0.08	13.05	0.13	0.6495	0.0293	0.1853	0.0049	ND		1.4012	0.0142	4.4406	0.0415
ZS-10	3.04	0.27	5.42	0.07	14.79	0.11	0.3591	0.0192	0.4361	0.0049	ND		0.4907	0.0049	5.1613	0.0367

Ti	Ti +/-	V	V +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Со	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
0.3817	0.0231	0.0597	0.0098	ND		0.0877	0.0054	4.9104	0.0471	ND		ND		0.0027	0.0009	0.0048	0.0006
0.1312	0.014	0.0367	0.0065	ND		0.149	0.0054	8.86	0.07	ND		ND		ND		0.0059	0.0006
0.5585	0.0207	0.0372	0.0075	ND		0.0609	0.0038	6.1403	0.0418	ND		0.0049	0.0009	0.0085	0.0009	0.0055	0.0005
0.1597	0.0173	0.0323	0.0082	ND		0.069	0.0044	1.8472	0.0189	ND		ND		0.0031	0.0007	0.0056	0.0005
ND		ND		ND		0.0132	0.0037	0.0601	0.0046	ND		ND		ND		ND	
0.505	0.0249	0.0376	0.0095	ND		0.0609	0.0046	3.1596	0.0306	ND		0.0112	0.0012	0.0029	0.0008	0.0061	0.0006
0.2007	0.0154	ND		ND		0.0134	0.003	9.29	0.08	ND		ND		0.0212	0.0014	0.0059	0.0007
0.3998	0.021	0.0352	0.0082	ND		0.0931	0.005	5.6676	0.0423	ND		ND		ND		0.0045	0.0005
0.3937	0.0257	0.0459	0.0105	ND		0.0817	0.0059	4.9	0.05	ND		0.0044	0.0013	ND		0.0034	0.0007
0.1574	0.0149	0.0372	0.0067	ND		0.1593	0.0056	9.81	0.07	ND		ND		ND		0.0066	0.0006

As	As +/-	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Y	Y +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn
0.0009	0.0003	ND		0.0026	0.0002	0.0582	0.0008	0.0024	0.0002	0.0109	0.0004	0.0014	0.0002	ND		ND		ND
ND		ND		0.0026	0.0002	0.0453	0.0006	0.002	0.0002	0.0102	0.0003	0.0007	0.0002	ND		ND		ND
0.0037	0.0003	ND		0.0023	0.0002	0.0126	0.0003	0.0024	0.0002	0.0078	0.0003	ND		ND		ND		ND
ND		ND		0.0076	0.0002	0.1057	0.0009	0.0011	0.0002	0.0052	0.0003	ND		ND		ND		ND
ND		ND		ND		0.0391	0.0006	ND		ND		ND		ND		ND		ND
ND		ND		0.0005	0.0001	0.0608	0.0007	0.0014	0.0002	0.0202	0.0004	ND		ND		ND		ND
0.0017	0.0005	ND		ND		0.0026	0.0002	0.0016	0.0002	0.0128	0.0004	0.0011	0.0002	ND		ND		ND
ND		ND		ND		0.072	0.0008	0.0008	0.0002	0.001	0.0003	ND		ND		ND		ND
0.0011	0.0003	ND		0.0035	0.0003	0.0573	0.0009	0.0023	0.0002	0.0094	0.0004	0.0017	0.0003	ND		ND		ND
ND		ND		0.0025	0.0002	0.0433	0.0006	0.0023	0.0002	0.0088	0.0003	ND		ND		ND		ND

Sn +/-	Sb	Sb +/-	w	W +/-	Hg	Hg +/-	Pb	Pb +/-	Bi	Bi +/-	Th	Th +/-	U	U +/-	LE	LE +/-
	ND		ND		ND		ND		ND		0.0042	0.0008	ND		67.66	0.24
	ND		ND		ND		ND		ND		0.0024	0.0007	ND		64.87	0.3
	ND		ND		ND		0.0016	0.0003	ND		ND		ND		59.65	0.22
	ND		ND		ND		0.0025	0.0003	ND		ND		ND		55.93	0.22
	ND		ND		ND		ND		ND		ND		ND		43.82	0.28
	ND		ND		ND		0.0011	0.0003	ND		ND		ND		63.76	0.24
	ND		ND		ND		0.0127	0.0007	ND		0.0025	0.0007	ND		71.48	0.23
	ND		ND		ND		ND		ND		ND		ND		54.31	0.24
	ND		ND		ND		ND		ND		0.0045	0.0009	ND		71.08	0.26
	ND		ND		ND		0.0014	0.0004	ND		0.0025	0.0007	ND		60.09	0.3