# PROSPECTING REPORT ON THE WOLF CLAIMS, WOLF LAKE VANCOUVER ISLAND, BC

Lat. 125° 12' 15" W, Long. 49° 46" 29" N

NTS 92F 14E

**Nanaimo Mining Division** 

May 25, 2006

GEOLOGICAL SURVEY BRANCH

By:

James Laird, Laird Exploration Ltd.

For

Pearl Asian Mining Industries Inc. Owner

**EVENT NUMBER 4042338** 

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#### **EXECUTIVE SUMMARY**

- 1. This report was prepared at the request of Pearl Asian Mining Industries Inc. of Vancouver, BC, owner of the Wolf Lake Property, by James Laird, prospector. The Wolf Lake Property is located on the eastern slope of Mt. Washington near the town of Courtenay, Vancouver Island, BC. The prospecting work was done by James and Christopher Laird of Laird Exploration Ltd. from July 1 to 4, 2005.
- 2. The Wolf Lake Property is situated within an area of BC that is currently sustaining great exploration interest due to the occurrence of many past-producing and potentially economic mineral deposits, particularly those containing gold. The property has the potential to host significant high-grade gold deposits.
- 3. The property is located approximately 6.5 kilometres east of the past-producing copper-gold deposit at the Mt. Washington Mine, and the adjacent Lakeview-Domineer gold deposit which hosts a historical (pre NI 43-101) drill-indicated resource of 550,298 tonnes at a grade of 6.75 g/t gold and 32.23 g/t silver. The geological setting and mineralogy of the Wolf Lake Property is analogous to the Mt. Washington Mine and the Lakeview-Domineer gold deposit.
- 4. A proposed work program includes construction of a control grid, geological mapping and rock sampling, a soil and silt geochemical sampling program, IP geophysical survey, and trenching. Based on a compilation of these results, a diamond drill program will be designed to explore and define the potential resources.

#### 1.0 INTRODUCTION

#### 1.1 Terms of Reference

This report was prepared at the request of Pearl Asian Mining Industries Inc. of Vancouver, BC, owner of the Wolf Lake Property, by James Laird, prospector. The Wolf Lake Property is located on the eastern slope of Mt. Washington near the town of Courtenay, Vancouver Island, BC. This prospecting report is a summary of exploration activities on the Wolf Claims, part of the Wolf Lake Property, during July 1 to 4, 2005. Historical information from Laird Exploration Ltd. files, the BC Geological Survey, the Geological Survey of Canada and other sources has been reviewed and used where pertinent.

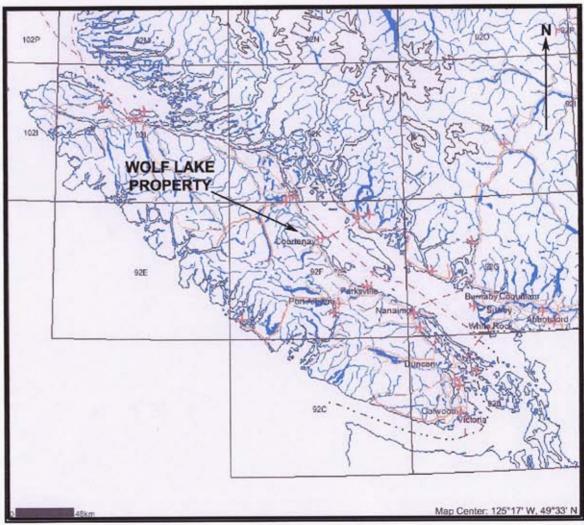


Fig. 1
WOLF LAKE PROPERTY BC LOCATION MAP

## 1.2 Location and Access

The Wolf Lake Property is located on the eastern slope of Mt. Washington near the town of Courtenay, Vancouver Island, BC. Access to the property is from the Island Highway; drive 2 km west along the Strathcona Parkway towards Mt. Washington, turn north on the Duncan Bay Main logging road and travel about 10km to the north end of Wolf Lake. A series of old and recent logging spurs access various parts of the property, a 4wd vehicle is needed in many areas.

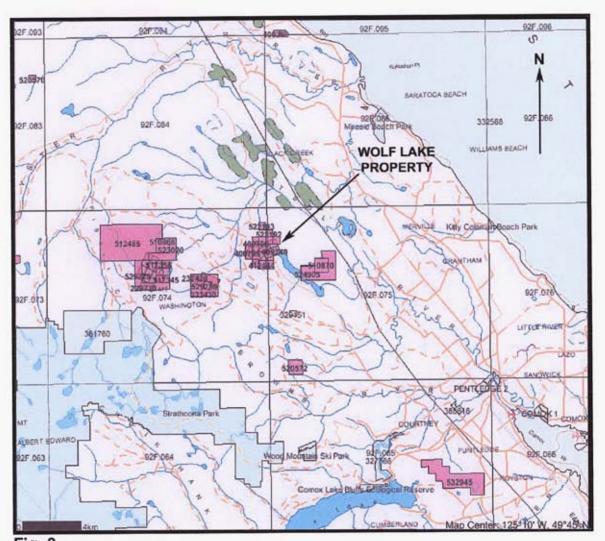


Fig. 2
WOLF LAKE REGIONAL LOCATION MAP

# 1.3 Topography, Climate, Vegetation

Topography within the claims area is relatively subdued with the main mineralized outcrop areas being between 250-500 metres above sea level. The climate is mild and typical of low elevation areas near the eastern coast of Vancouver Island. Vegetation is largely second growth cedar, hemlock, spruce and fir with dense underbrush. Wildlife noted in the area includes; deer, black bear, elk, cougar and a variety of smaller animals and birds. Several trout species inhabit Wolf Lake and it is a popular local fishing spot.

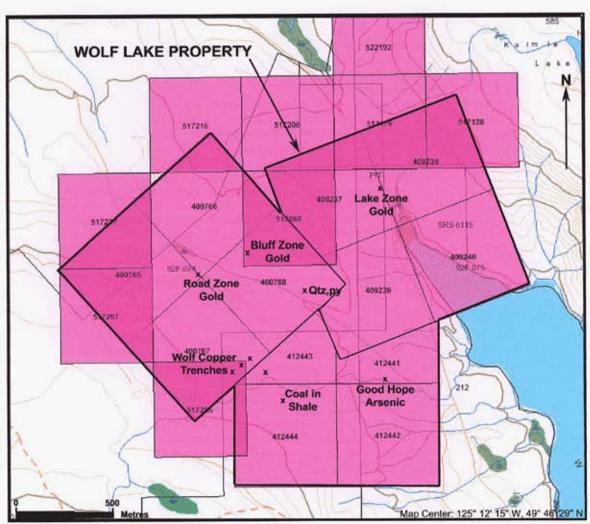


Fig. 3

WOLF LAKE PROPERTY MAP

## 1.4 Property Status

BC Tenure #	Work Due Date	Units	S Total Area (Ha)
412441	July 18, 2008	1	25
412442	July 18, 2008	1	25
412443	July 18. 2008	1	25
412444	July 18, 2008	1	<u>25</u>
	-		100

#### 1.5 Previous Work

The earliest known information on showings in the claimed area is found in a 1927 government report, which describes a realgar (arsenic sulphide) deposit on the Good Hope claim. These showings are now covered by the Wolf claims. High-grade gold mineralization was discovered on Mt. Washington in the Domineer zone, about 6.5 km west of the claims, in 1940. Approximately 400,000 tons of 1.16% copper with gold and silver credits was mined from two open pits on Mt. Washington during 1964-1965. Since 1983, Better Resources Ltd. (now Bluerock Resources Inc.) has explored the gold and silver potential at Mt. Washington and by the end of 1989 had established a (pre-NI 43-101) drill-indicated resource of 550,298 tonnes (pre NI 43-101 standards) at a grade of 6.75 g/t gold and 32.23 g/t silver in the Domineer and Lakeview zones.

In his report on the Tertiary Mineral Deposits of Vancouver Island, Carson (1969) shows the geology and mineral deposits of the Mt. Washington and Constitution Hill area to be similar in character and origin. Several companies, including Proquest Resources Corporation, Cactus West Explorations Ltd., St. James Minerals and Homestake Mineral Development Company have explored the present claims area when it was held as part of the Lupus claims in the mid 1980's.

During these programs two gold bearing showings were discovered, the Lake Zone and the Road Showing. A private prospecting report by James Laird for Cactus West Explorations Ltd. documenting prospecting work during the period March 10 to 27, 1987, describes the nature and mineralogy of the three important showings, the Lake Zone, Road Zone, and the newly discovered Bluff Gold Vein. A geological assessment report done in 2004 by K. W. Geiger, Ph.D. examined the general geology and mineral deposits of the claims. In 2005, a detailed mineralogical examination of the Lake Zone was reported on by Greg Thomson, B.Sc., and James Laird of Laird Exploration Ltd. Gold was found to be associated with arsenopyrite, and to a lesser extent, total sulphide content.

#### 2.0 GEOLOGY

# 2.1 Regional Geology

The Mount Washington area is underlain by sediments of the Upper Cretaceous Nanaimo Group (Comox Formation), which unconformably overlie basaltic volcanic rocks of the Upper Triassic Karmutsen Formation. Intruding both formations is a series of quartz diorite porphyry intrusives of the Oligocene Mt. Washington Intrusive Suite, dated at approximately 35 million years.

The Karmutsen Formation comprises basaltic flows, pillow lavas, pillow breccias and aquagene tuffs. A few thin intra-volcanic sedimentary intervals with limestone and volcanic conglomerate occur near the top of the formation. The intra-volcanic sequences may have localized low-angle detachment-style faulting hosting gold-copper mineralization deposited during the Tertiary era.



Fig. 4
MOUNT WASHINGTON FROM WOLF LAKE

The unconformably overlying Comox Formation of the Nanaimo Group comprises mainly fine-grained sandstone and greywacke, with interbedded siltstone, shale and occasional coal beds. A basal conglomerate of the Comox Formation known as the Benson Member consists of rounded clasts of Karmutsen rocks. The unconformity between Comox and Karmutsen Formations is a major focus for low-angle detachment faulting and economic mineralization.

The quartz diorite intrusives are variably porphyritic and form the cores of Mount Washington and Constitution Hill. Several large sills and dikes of quartz diorite and dacite porphyry are found throughout the district. All formations are in turn pierced by breccia systems of various composition, size, shape and possibly different ages. Breccias vary from those containing mainly monolithic intrusive clasts to those composed of predominately rounded and milled heterolithic fragments. An extrusive volcanic component has been postulated to occur concurrent with breccia pipe formation on Mt. Washington, but has not been conclusively proven.

The most extensive zones of mineralization identified at the Mt. Washington Mine are associated with continuous, gently dipping shear structures, semi-concordant with the Karmutsen-Comox unconformity. They have been interpreted as stacked thrust faults or decollements. Steeply dipping mineralized vein shears are not uncommon, and may have been feeders for the low-angle faults. The shear/fault structures cut all rock types, including most breccia pipes.

Mineralized zones are usually marked by the development of brecciation, pervasive kaolinization and silicification. Mineralogy is complex on the microscopic level, but common visible minerals include quartz, calcite, pyrite, arsenopyrite, chalcopyrite, galena, sphalerite, realgar and orpiment. Gold is most often associated with arsenopyrite.

# 2.2 Wolf Lake Property Geology

Several mineralized zones have been found on the Wolf Lake Property, the Lake Zone, Road Zone, Bluff Zone, and the Good Hope arsenic showing. This report deals with prospecting a poorly-explored area of the property on the southern boundary along Wolf Creek.

Fracture-hosted chalcopyrite, pyrrhotite and pyrite mineralization was found in the Wolf Creek area in many old trenches, hosted in Karmutsen basalt. These trenches were sampled but not assayed due to the overall low sulphide content. Typically, these small E-W trending shear zones and sub-vertical veins carry low gold values regionally, but comprehensive assays are needed to conclude this. Mineralogy seems to control the gold

content, and the addition of quartz, pyrite, galena, sphalerite and arsenopyrite are indicators of good gold content. Realgar and orpiment mineralization are present in the Good Hope showing on the Wolf Claims, but typically carry no gold. However, these arsenic minerals are a good sign that high-grade gold zones are in the vicinity. A new showing of coal and coal shale was discovered south of Wolf Creek.

#### Lake Zone Gold

The Lake Zone, which has been previously trenched and sampled, is situated in a rock quarry beside the main logging road at the north end of Wolf Lake. The gold-bearing zone is a shallow east-dipping tabular sheet of sulphides and altered wallrock about 2 m thick. Visual mineralogy is pyrite, sphalerite, arsenopyrite, minor galena and chalcopyrite in a gangue of vuggy quartz, carbonate, and dark brecciated wallrock fragments. The vein breccia was discovered during quarrying operations and did not outcrop, indicating good potential for similar "blind" zones on strike or parallel to the Lake Zone.



Fig. 6

LAKE ZONE GOLD

The Lake Zone mineral occurrence is hosted entirely within dark green, fine to medium grained (partially amygdaloidal) basaltic flow rocks of the Upper Triassic Karmutsen Group. Karmutsen volcanics are exposed in a quarry outcrop exposure, which trends generally north-south for approximately 55 meters. A quartz-sulphide vein of 10-30 centimetres in width has been emplaced along a sheared dip slope fault plane, which lies at 0-20° strike and dips 24° to 40° east. Mineralization has been partially eroded from the large open surfaces of the fault plane at the southernmost 10 meters of the outcrop exposure. The vein is exposed for approximately 33 meters throughout the vertical walls of the outcrop. Subvertical cross-jointing is evident throughout the outcrop area striking 100-145° and dipping from vertical to 72° south. The footwall of the vein consists of a dark alteration in basalt of indeterminate thickness containing numerous anatomizing quartz-sulphide veinlets of 1 to 2 centimetres in thickness.

The vein mineralogy consists primarily of massive to semi-massive concentrations of medium to coarse-grained pyrite and black sphalerite with lesser amounts of arsenopyrite, chalcopyrite and galena. Tetrahedrite, bornite and native gold were also identified in a polished section report. Native gold occurs mainly with the arsenopyrite. Knelson Concentrators Ltd. of Langley BC was commissioned to run gravity concentrator tests for gold recovery on Lake Zone ore. The sample weight was 9.5 kg, which was crushed and ground to 86 microns before processing. The overall amount of gold recovered by gravity was 24.6% with a calculated head grade of 39.3 g/t gold. The recovery indicates a moderate amenability to gravity concentration.

#### **Road Zone Gold**

The Road Zone is located about 1.4 km west of the Lake Zone and is accessible from a small spur road off the Murex Creek road, which joins the main logging road just north of Wolf Lake. The Road Showing is similar in structure to the Lake Zone in that it is a shallow east-dipping sheet of sulphides with a 30-40cm (?) thickness, but differs in mineralogy which includes: pyrite, chalcopyrite, pyrrhotite, minor malachite and azurite in a gangue of vuggy quartz veins and silicified basalt. A grab sample assayed 21.94 g/t gold and 30.86 g/t. silver. A small amount of native gold has been seen in specimen material. The true dimensions of the zone remain to be exposed, and local soil geochemistry suggest it persists over a much larger area. Volcaniclastic sediments in the form of volcanic conglomerate occur below the showing, suggesting a detached fault surface localized by an intra-volcanic sedimentary layer may be a controlling factor. Anomalous gold in soil geochemistry indicates that the gold vein structure extends beyond the trenched area.



Fig. 7

## ROAD ZONE GOLD

#### **Bluff Zone Gold**

The Bluff Zone is situated part-way between the Road Zone and the Lake Zone. It is a narrow (10-20 cm), vuggy quartz-pyrite vein with rare native gold, exposed for 50 metres+ in the wall of a small cliff on the opposite side of the hill that contains the Lake Showing. The vein has the same general attitude as the Lake Zone and Road Zone. Similar alteration and silicification was found along strike for more than 200 metres to the southeast on the Wolf claims, possibly on the same fault or formational contact exposed at the Bluff Gold Vein. Following the strike of the vein to the north, lenses of limestone and tuffaceous beds again suggest a detached fault surface control for the mineralization, similar to the Lake Zone and the Road Zone.

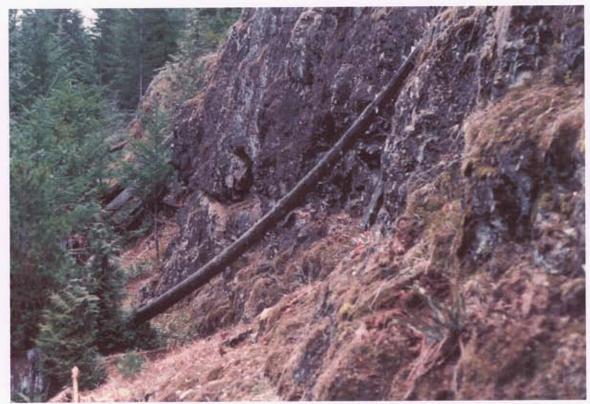


Fig. 8

**BLUFF ZONE GOLD** 

# Good Hope Showing

The Good Hope Showing is the first discovery in the area, described in 1927 in a GSC Report. It consists of lenses of calcite and realgar hosted in faulted and brecciated Karmutsen Formation basalt. Nanaimo Group sediments occur to the south and a Tertiary dacite intrusion was found near the showings. No significant gold values have been found within this mineralized zone. Minor native arsenic, arsenopyrite and chalcopyrite occur within and peripheral to the zone.

# **Present Work Program**

The work program on the Wolf claims was focused on examining a series of old trenches known to exist in the vicinity of Wolf Creek, and general prospecting in the area around the Road Zone Gold and Bluff Zone Gold. A new discovery of coal shale with narrow coal seams was found on a new logging spur just south of Wolf Creek. Several areas of Nanaimo Group sediments exposed on the new logging roads show small intrusions of Tertiary dacite and quartz diorite. A sub-vertical, narrow (<30 cm) east-west trending fault or fracture zone was found following upper Wolf Creek, but it hosts essentially unmineralized quartz and carbonate where examined.



Fig. 9

## COAL SHALE OUTCROP

While traversing Wolf Creek in the vicinity of the Wolf Creek trenches, outcrops of Nanaimo Group Benson Formation conglomerate were observed unconformably overlying Karmutsen Formation basaltic rocks. The disseminated and fracture-filling pyrrhotite-pyrite-chalcopyrite mineralization found in the Wolf Creek trenches is intriguing, and widespread in scattered outcrops of K-basalt. The mineralization seems to be associated with steeply-dipping fracture zones. The style of mineralogy present does not often indicate economic gold content; however, conclusions should only be based on assay data. A comprehensive rock sampling program of all trenches and mineralized areas is recommended. GPS readings were taken of all trenches found but coordinates are not included here due to poor satellite reception and consequent large error factors.

The existing known gold deposits on the Wolf Lake property and at Mt. Washington are hosted within low-angle faults or detachment faults in the upper portions of the Karmutsen or at the unconformity with the Nanaimo Group. Future explorations should be directed towards finding and identifying these structures and determining if they are mineralized.

#### 3.0 CONCLUSIONS AND RECOMMENDATIONS

The Wolf Lake Property hosts several high-grade gold vein systems and prospects within a complex geological environment. Additional geological fieldwork is necessary in order to prioritize potential drill targets and to discover new mineralized exposures. Soil geochemistry and IP geophysics have been shown in previous limited surveys over the mineralized areas to be useful in following the zones. The following development program is designed to test the property for gold and silver deposits using locally proven geological concepts and exploration techniques.

The anticipated costs of this development are presented in three resultscontingent stages.

#### Phase 1

Reconnaissance geological mapping, prospecting, rock and soil sampling.

\$15,000.00

#### Phase 2

Detailed geological mapping and rock sampling, grid construction, soil geochemical survey, magnetometer and IP surveys, establish drill targets. \$85,000.00

#### Phase 3

1000 metres of diamond drilling including geological supervision, assays, report and other ancillary costs.

<u>\$150,000.00</u>

TOTAL

\$250,000.00

#### 4.0 REFERENCES

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Verley, C.G. and Keyser, H.J. (1985): Geological and Geochemical Report on the Lupus 1, 3, 5 and 6 Claims, B.C. Geological Branch Assessment Report Number #13426, 36 pages.

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# 5.0 STATEMENT OF EXPENSES

# July 1 to 4, 2006

Total	\$2725.00
Per diem room and board, 6 man-days @ 100.00 per m/d	<u>\$600.00</u>
Report Cost	\$400.00
Field Supplies	\$100.00
BC Ferries	\$125.00
Truck Mileage, 400 km @ 0.75 km inclusive	\$300.00
Christopher Laird, Prospector – 3 days @ 100.00 pd	\$300.00
James Laird, Qualified Prospector - 3 days @ \$300.00 pd	\$900.00

## 6.0 STATEMENT OF QUALIFICATIONS

# I, James W. Laird do state that:

My address is PO Box 672, Lions Bay, BC VON 2E0

I am a prospector and mining exploration contractor and have been for more than 25 years.

I have completed the BC EMPR course "Advanced Mineral Exploration for Prospectors, 1980".

I am very familiar with the geology of the project area and have working in the Mount Washington area for more than 20 years.

James W. Laird

Laird Exploration Ltd.

May 25, 2006