# REPORT ON

# GEOLOGICAL and GEOCHEMICAL SURVEYS

# on the

# BLUE OX GROUP



Nanaimo Mining Division
NTS Map Area 92L/6E
Lat. 50 degrees 19' N
Long. 127 degrees 14' W

Owned by Taywin Resources Ltd.
and J. W. Laird
Operated by Taywin Resources Ltd.

Prepared by:
Tiro Clarke, B.Sc.(Geology)

Submitted
May 15, 1989

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### FIGURES



### APPENDIX 1

## SUMMARY and RECOMMENDATIONS

The Blue Ox Group is located on northern Vancouver Island, in the Nanaimo Mining Division, approximately 28 km SW of Port McNeill. The group consists of the Blue Ox 1-8 claims plus the Blue Ox Fraction, staked by J. Laird in October, 1988, and January, 1989.

The group is underlain by Late Triassic Parson Bay Formation sediments and limestones, and Early Jurassic Bonanza Volcanics (basalts and andesites). The entire package is folded into a sequence of open to moderate northwesterly trending folds and warps.

Mineralization on the Blue Ox Group occurs in north-northeasterly trending quartz and calcite veins. The quantity of quartz in veins and vein stockworks on the Blue Ox Group far exceeds that seen elsewhere during regional mapping. The vein systems, found both in volcanic and sedimentary units, occasionally carry chalcopyrite, pyrite, and sphalerite. Samples of this material contain up to 13.5% Cu. Concentrations of barren calcite veins near fold axes in the limestone units suggest that they are syntaxial fillings of fractures created during folding.

Twenty five soil samples were collected from a grid on the Blue Ox Group and later analyzed for 30 element ICP and geochemical Au. Geochemical results have failed to identify anomalous areas other than the known quartz veins.

Work to date has identified Cu-Zn mineralization associated with north to northeast-trending quartz veins. However, previously reported workings (presumably over the most promising showings) have not been located. These workings should be located and examined before further work is considered.

## INTRODUCTION

### Location and Access (Figures 1&2)

The Blue Ox Group is located on northern Vancouver Island in the Nanaimo Mining Division, approximately 4 km from the peak of Merry Widow Mountain. The geochemical sampling grid is located in the Blue Ox 3 claim on the north side of Blue Ox Creek, centred around UTM coordinates N5575950, E608550. From Port McNeill the group is reached by driving north on Highway 19 for 4 km, then turning left on the Keogh Main loggging road for another 37 km to the junction at Benson River. Benson Main, and then logging road B200, can then be followed south for 2.5 km to the Blue Ox Group.

### Property Description

The Blue Ox Group consists of 9 claims totalling 9 units as follows:

Blue Ox 1-8: 8 units; record #'s 3159-3166
expiry date Oct. 9, 1989.
Blue Ox Fraction: 1 unit; record #3228
expiry date January 14, 1990

The claims were staked in October, 1988, and January, 1989, on the basis of previously reported Zn-Cu showings in a quartz-vein hosted shear zone.

### Summary of Work Performed

Between October 15, 1988, and April 29, 1989, the following work was performed on the Blue Ox Group:

1. Soil geochemical survey: two men spent one half day collecting 25 soil samples; these were later analyzed for 30 element ICP and geochemical Au; a total of 0.575 line kilometers were established.
2. Prospecting: one man spent 3 days prospecting the Blue Ox Group.
3. Geological mapping: one man spent 3 days mapping the Blue Ox Group on a scale of 1:5000.

Climate, vegetation, topography and drainage

The area has a climate typical to British Columbia's west coast. Summers are warm, with abundant rainfall in the autumn. Winters are cool and wet, and mountainous regions above 2000' (600m) receive appreciable snowfall.

Most of the Blue Ox Group has recently been clear-cut logged. Much of the remaining area has a second growth of approximately 10 years age.

The Blue Ox Group has maximum and minimum elevations of 460m and 215m, respectively, on a moderate west-facing slope. The area is well drained and there are no bogs on the group. Blue Ox Creek runs easterly through the Blue Ox 3-4 claims and drains into Benson River. Several lesser streams on the group have similar drainage patterns.

## TECHNICAL DATA

### Regional Geology 1

The northern Vancouver Island area is underlain by a conformable sequence comprised of, in ascending order, Karmutsen Formation basalts, Quatsino Formation limestones, Parson Bay Formation sediments and carbonates, and Bonanza Volcanics andesites to rhyodacites. Harbledown Formation non-calareous argillites and greywackes are locally present between the Parson Bay Formation and Bonanza Volcanics. The above package, deposited from Late Triassic to Early Middle Jurassic time, is intruded by Late Middle Jurassic granitic rocks of the Island Intrusions.

At the bottom of the package are Upper Triassic Karmutsen Formation basalts and andesites with an estimated thickness of 6000m. The main units are basaltic pillow lavas, basaltic pillow breccias, and basaltic to andesitic flows. Discontinuous beds and lenses of limestone which may represent earliest Quatsino Formation are present in the uppermost Karmutsen Formation.

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(1) Muller, J.E., K.E. Northcote, and D. Carlisle, 1974. Geology and Mineral Deposits of Alert Bay - Cape Scott Map-Area, Vancouver Island, British Columbia: Geol. Surv. Can. Paper 74-8.

The Upper Triassic Quatsino Formation is a relatively homogeneous limestone sequence with a maximum thickness of at least 750m. The limestone is generally light grey, fine grained to microcrystalline, well bedded on a scale of centimetres to metres, and locally fossiliferous. In areas of structural deformation and/or intrusive activity the limestone is often recrystallized, white, and stylolitic.

The contact between Upper Triassic Quatsino and Parson Bay Formations is gradational, indicated by the appearance of Halobia-bearing black shales, limestones, and siltstones. These, together with less common volcaniclastic grits and pebble conglomerates are main lithologies of the 300m to 600m thick Parson Bay Formation.

The Lower Jurassic Harbledown Formation is characterized by non-calcareous argillites, cherty quartzites, and cross-bedded greywackes and feldspathic sandstones. Although a maximum thickness of 870m has been estimated for the Harbledown Formation, it may be absent over large areas.

Above the Harbledown Formation lie the Lower Jurassic Bonanza Volcanics, which have an average thickness of approximately 2400m. The volcanics are heterogeneous, ranging from rhyodacites to basalts, with minor intercalated sedimentary units.

Intruding the above Late Triassic-Early Jurassic package are granitic rocks of the Island Intrusion. Most of these have a granite to quartz monzonite and diorite composition, but gabbroic members have been noted. Many of the Island Intrusions have been dated at approximately 150 million years.

Blue Ox Group Geology (stratigraphy)

Present on the Blue Ox Group are units of the Parson Bay Formation, Harbledown Formation, and Bonanza Volcanics. The rocks generally strike from northwesterly to northeasterly and are folded into a series of open to moderate northwest trending folds. No major fault or shear zones were observed on the group, although small faults with strike-slip offsets of a few metres may be present. Best exposures are seen in roadcuts and creek beds.

The best continuous section of Parson Bay Formation is seen in Blue Ox Creek. At the bottom of the section (on the Blue Ox 4 claim) are dark grey to black finely crystalline limestones, weathering buff to dark brown. Bedding thickness range from 5 to 75cm. Prominent in the lower section are rusty-weathering lenses and concretions of iron-rich limestone. Upsection the limestones are interbedded with black calcareous argillites and often have a

sand "dusting" on the tops of beds. The trend upsection is towards thinner beds, commonly 5 to 15cm in thickness. In creek beds just north of logging road B210 are fossiliferous sandy interbeds and lenses within finer-grained limestones and calcareous argillites. The fossils are fragmented, but are most likely pelecypods and gastropods. Further upsection the limestones and calcareous sediments exhibit syngenetic deformation features such as contorted laminations and scoured bedding surfaces. Bioturbation and iron-rich concretions and lenses are common in these units. At the top of the Parson Bay sequence are thick (1.5m+) beds of relatively pure, light grey limestone. Coral found near Rainier Creek, approximately 1km north of the Blue Ox Group, may be from this unit.

Success in mapping Parson Bay Formation rocks is largely contingent upon basin deposition modelling. Both lateral and vertical facies changes significantly alter lithologic makeup of units. Overall, Parson Bay Formation rocks on the Blue Ox Group are interpreted to represent a shallowing basin (regressing shoreline) sequence. Evidence for this are upsection increases in sand content, fossil and trace fossil content, and syngenetic deformation. Within a single horizon, particularly sandy and bioturbated/fossiliferous regions may be indicative of proximity to shoreline, while the finer-grained limestones and argillites may be their offshore equivalents.

Above the uppermost Parson Bay Formation thick-bedded limestone lies the Harbledown Formation. The diagnostic lithology as seen near the end of logging road B100 is a tan weathering, cross-bedded sandstone. The sandstone is light grey and immature, consisting primarily of feldspar and hornblende, with minor quartz and volcanic rock fragments. The fluvial type of deposition indicated by cross bedding may represent the final phase of a shallowing basin/regressing shoreline sequence, either preceeding or coeval with the onset of volcanism.

Directly overlying (and possibly intercalated with) the Harbledown Formation sediments are the Bonanza Volcanics. The volcanics may also directly overlie and interfinger with Parson Bay rocks where Harbledown rocks are absent. The lowest volcanic unit is a light grey, fine-grained andesite. While parts of this unit are amygdaloidal, others are not, indicating that both extrusive and intrusive phases may be present. Observed but not mapped above the andesite unit are black to maroon feldspar porphyries and vesicular and amygdaloidal basalt.

Blue Ox Group Geology (structure)

Bedding in the northern half of the Blue Ox Group generally strikes northwesterly, with dips ranging from horizontal to 30 degrees northeast and southwest. In the Blue Ox Creek area, where more pronounced folding occurs, bedding occasionally strikes east-west.

Fold axes trend northwest and generally have shallow plunges of less than 20 degrees. Moderate folding in the south of the group decreases northerly to gentle folds and warps. Three main groups of fold axes were noted; the first occurs near Blue Ox Creek, the second and third occur approximately 1km and 2km north, respectively, from the first. Concentrations of radial joints at fold axes may control some creek locations.

No major faults or shears were noted on the Blue Ox Group. One small east-west trending fault with a few metres dextral offset was seen in Blue Ox Creek, and others may exist.

Blue Ox Group Geology (mineralization)

Cu-Zn mineralization on the Blue Ox Group occurs in north to northeast trending quartz veins and stockworks ranging in width from <1cm to almost 2m. The volume of quartz alone is an anomaly, as virtually no quartz was noted elsewhere during regional mapping. The vein and stockwork systems are best exposed in Blue Ox Creek in the eastern half the Blue Ox 3 claim, and in the northeast corner of the Blue Ox 1 claim. Sporadic sulphide mineralization in the veins is primarily disseminated to semi-massive chalcopyrite. Quartz hosted disseminated sphalerite occurs in a creek bed approximately 700m north of Blue Ox Creek.

Discontinuous calcite veins and veinlets are locally abundant on the Blue Ox Group. They generally strike sub-perpendicular to, and are concentrated around fold axes within limestone. This, and their barren nature, suggest that the veins are syntaxial fillings of fold-related fractures.

Soil Collection and Preparation

A total of 25 soil samples were collected at 25m intervals along a north-south and an east-west line immediately north of Blue Ox Creek. Samples were collected from the "B" soil horizon and bagged in standard kraft paper envelopes; theirlocations were marked with orange flagging tape. All samples were submitted to Acme Analytical Laboratories Ltd., of Vancouver, B.C., for 30 element ICP and geochemical Au analysis. Sample preparation involved drying at 60 degrees C and sieving through -80 mesh.

## Description and Discussion of Results

Complete geochemical analysis results are presented in Appendix 1. Visual examination of these results shows that the only anomalous sample comes from directly beside logging road B200, and is thus probably contaminated with roadfill material (from nearby mine waste). It is of questionable worth to statistically analyze and plot all the results; however Figure 4 shows the geochemical grid layout and locations with "above average" values of Cu, Ag, Zn, or Au.

## CONCLUSIONS AND RECOMMENDATIONS

The Blue Ox Group contains much more quartz than any other ground in the immediate region. However, presently known Cu-Zn mineralization in these quartz veins and stockworks is sporadic. Previously reported work and mineralization on the Blue Ox ground alludes to the presence of more promising mineral showings, which should be located before any further work is considered.

## ITEMIZED COST STATEMENT

### WAGES

| | |
|---|---|
| James Laird - Prospector, Project Manager | |
| Fieldwork: April 25/26/28, 1989 - 3 days | |
| 3 days @ $200.00 per day | $ 600.00 |
| Tiro Clarke - Geologist | |
| Fieldwork: April 25/26/28, 1989 - 3 days | |
| 3 days @ $160.00 per day | $ 480.00 |
| Report preparation: May 7/8/9/14 | |
| 4 days @ $100.00 per day | $ 400.00 |
| Rennie Dickinson - Soil Sampler | |
| Fieldwork: Oct. 15, 1988 - 0.5 days | |
| 0.5 days @ $100.00 per day | $ 50.00 |
| Alexander Von Kersell - Soil Sampler | |
| Fieldwork: Oct. 15, 1988 - 0.5 days | |
| 0.5 days @ $100.00 per day | $ 50.00 |
| TOTAL WAGES | $1580.00 |

### MEALS AND ACCOMODATION

| | |
|---|---|
| Food | $ 148.48 |
| Accomodation | $ 28.13 |
| Camp Equipment Rental | |
| April 25/26/28, 1989 - 3 days | |
| 3 days @ $10.00 per day | $ 30.00 |
| TOTAL MEALS AND ACCOMODATION | $ 198.61 |

### TRANSPORTATION

| | |
|---|---|
| 4X4 truck rental from J. Laird | |
| April 25/26/28 - 3 days | |
| 3 days @ $50.00 per day | $ 150.00 |
| mileage: 465 km's @ $0.10 per km | $ 46.50 |
| gas | $ 77.45 |
| TOTAL TRANSPORTATION | $ 273.95 |

SAMPLE PREPARATION AND ANALYSIS
October 15, 1988
ACME LABS LTD.

| | |
|---|---|
| 25 x 30 element ICP analysis | |
| @ $6.25 per sample | $ 156.25 |
| 25 x geochemical Au analysis | |
| @ $4.50 per sample | $ 112.50 |
| 25 x soil sample preparation | |
| @ $0.85 per sample | $ 21.25 |
| | $ 290.00 |

SAMPLE PREPARATION AND ANALYSIS
April 25, 26 28, 1989
CHEMEX LABS LTD.

| | |
|---|---|
| Au - FA, Ag-FA, CU - % | |
| 1 @ 18.50 | $ 18.50 |
| Au - FA & AA, Ag - Aqua Regia, Cu - % | |
| 1 @ 16.00 | $ 16.00 |
| Au - FA & AA, 32 EL 1CP | |
| 4 @ 13.75 | $ 55.00 |
| Assay Prep. - Ring | |
| 2 @ 3.75 | $ 7.50 |
| Rock Geochem Prep. - Ring | |
| 4 @ 3.75 | $ 15.00 |
| | $ 112.00 |
| TOTAL SAMPLE PREPARATION AND ANALYSIS | $ 402.00 |

MISCELLANEOUS

| | |
|---|---|
| Prospecting and miscellaneous equipment rental | |
| 3 days @ $25.00 per day | $ 75.00 |
| TOTAL MISCELLANEOUS | $ 75.00 |

TOTAL OF BLUE OX GROUP COSTS $2529.56

## DECLARATION OF TIRO CLARKE, B.Sc. (Geology)

I, Tiro Clarke of 215 - 651 Moberley Road, Vancouver, British Columbia, V5Z 4B2, declare:

1. I am a geologist, currently residing at the above address.

2. I am a graduate of Geological Sciences from the University of British Columbia, in 1988, with a Bachelor of Science (Hon.) degree.

3. I have practiced geology since graduation.

4. I have no financial interest, directly or indirectly, in Taywin Resources Ltd., Vancouver, B.C., or in the property described in this report. I do not plan to receive or acquire any such interest.

5. This report is based upon a 3-day examination of the Blue Ox Group, in conjunction with a geochemical survey and prospecting conducted by others.

6. I consent to the use of this report in connection with the raising of funds for work recommended in this report.

DATED AT VANCOUVER, B.C., this 15th day of May, 1989.

Tiro Clarke, B.Sc. (Geology)

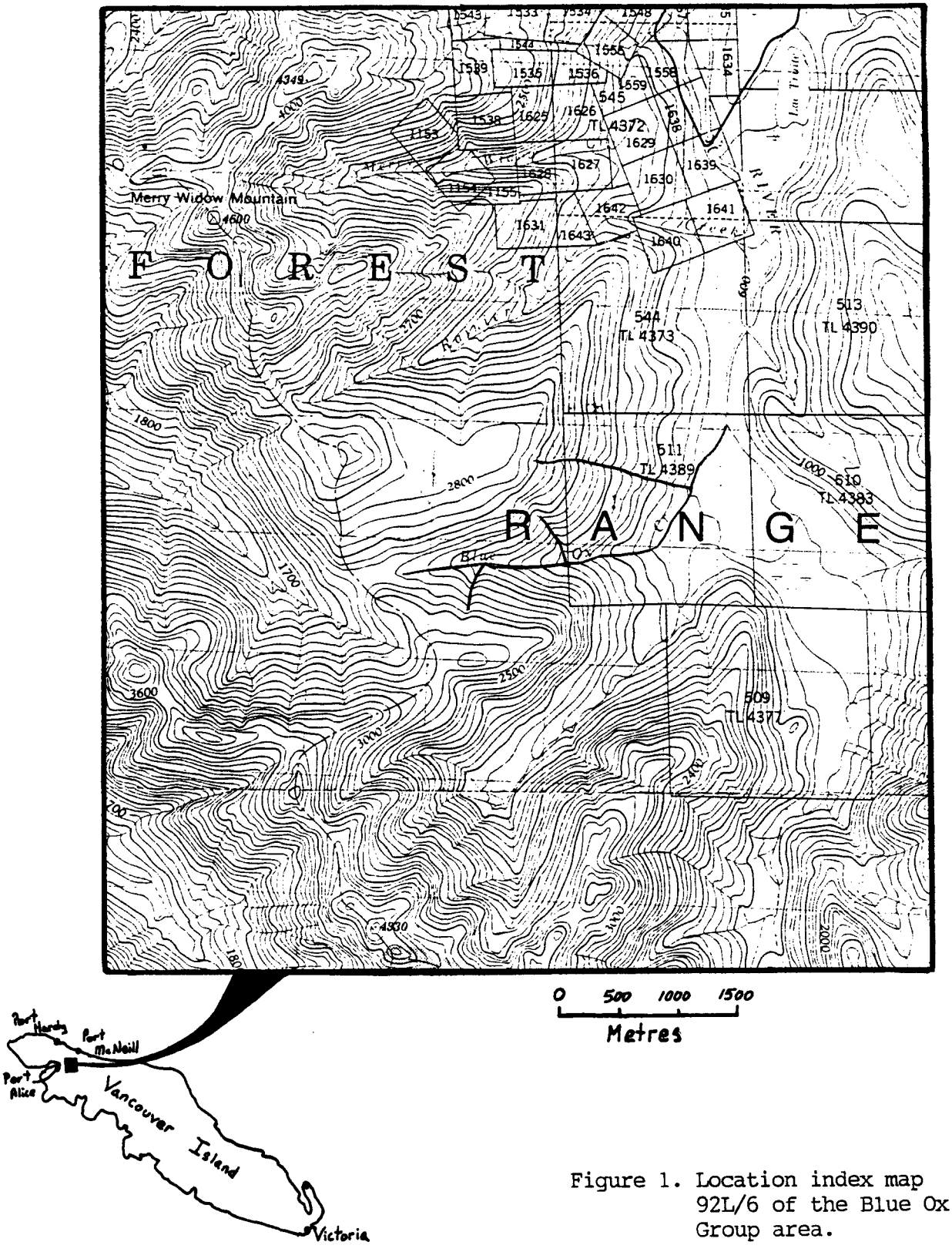


Figure 1. Location index map 92L/6 of the Blue Ox Group area.

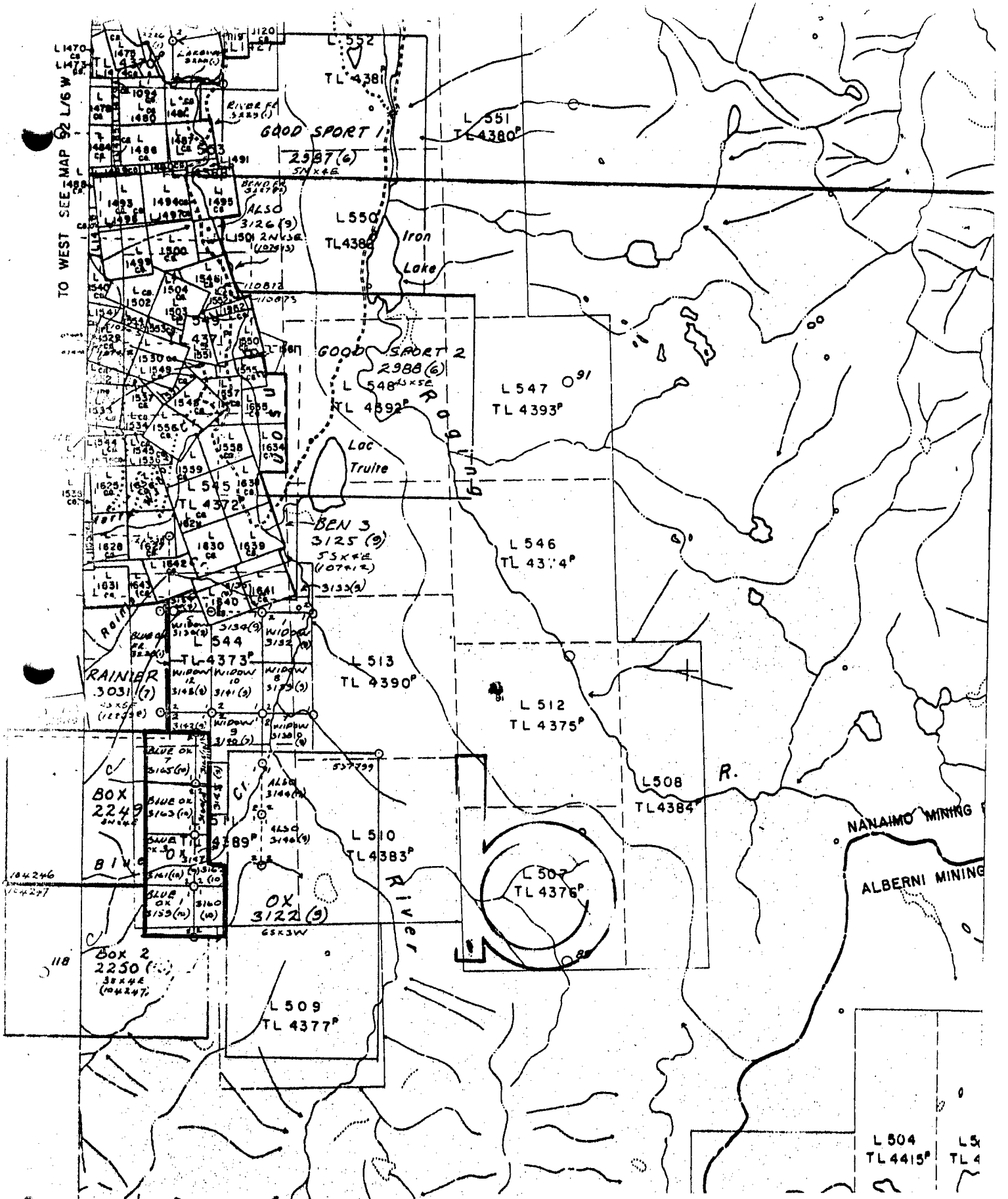


Figure 2. The Blue Ox Group.
Map 92L/6E
Scale 1:50 000 1 cm = 500

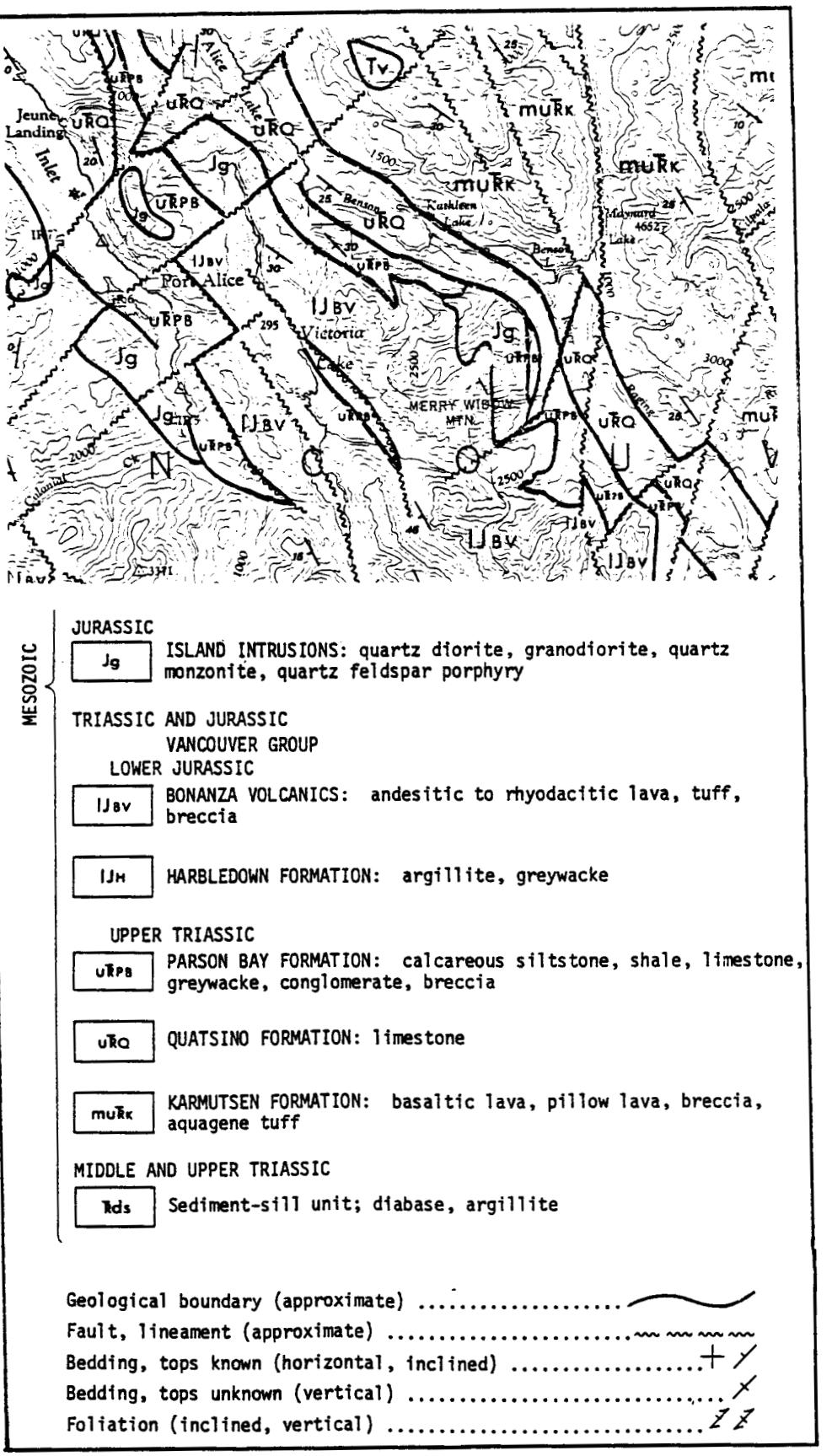


Figure 3. Regional geology of the Blue Ox Group area. (scale - 1:250,000)

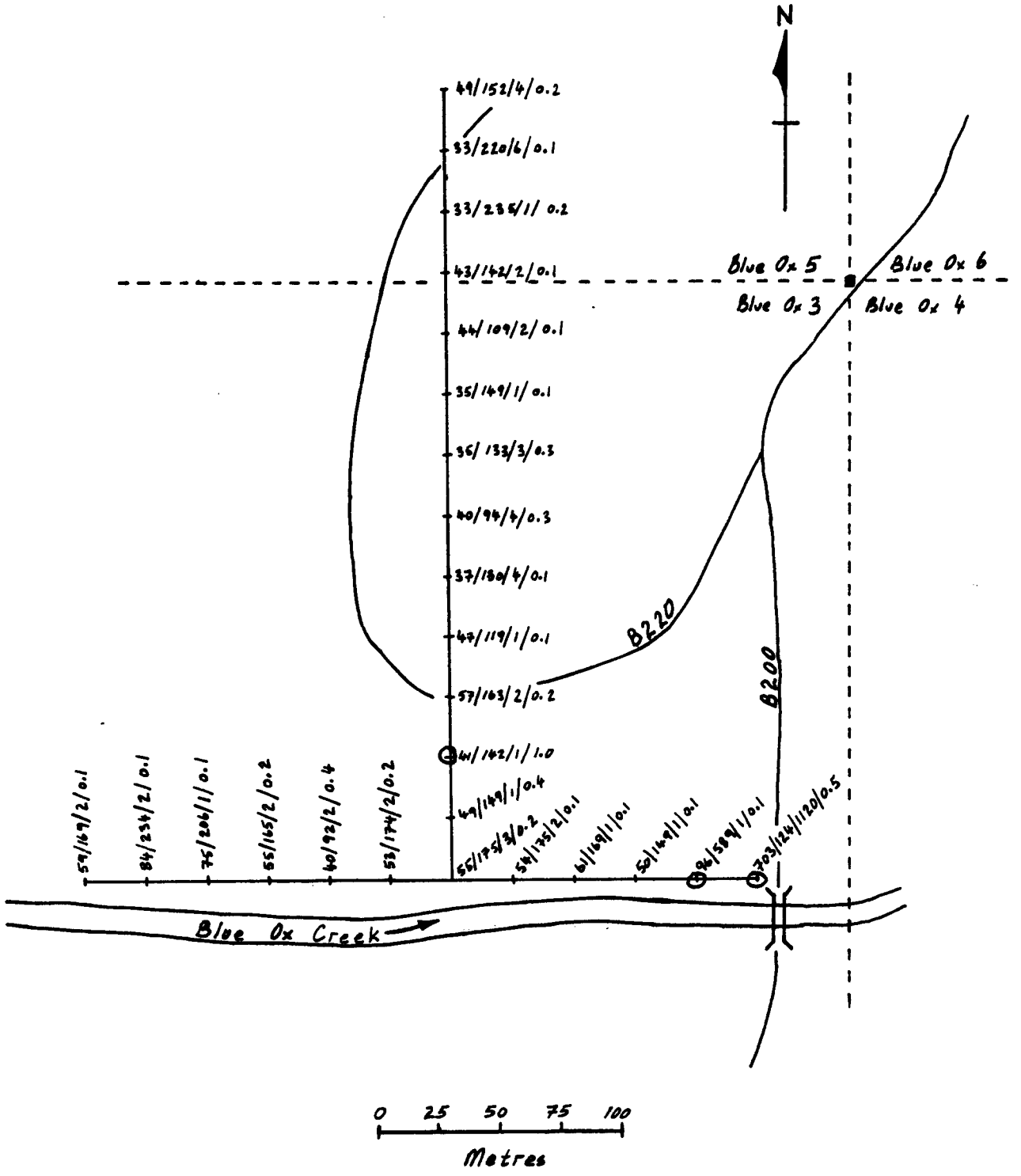


Figure 4. Blue Ox geochemical grid. Samples are located at 25m intervals, measured north, west, and east from the grid junction. Values are given as Cu(ppm)/ Zn(ppm)/Au(ppb)/Ag(ppm). The two samples (circled) nearest road B200 are most likely contaminated with roadfill material. The circled sample at 50N has an "above average" Ag value of 1.0 ppm. Other samples are not considered anomalous.

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

# GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1 SOIL P2 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: OCT 27 1988 DATE REPORT MAILED: Nov 3/88 SIGNED BY. C. Leong .D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

JAMES W. LAIRD PROJECT BLUE OX File # 88-5500 Page 1

| SAMPLE# | Mo PPM | Cu PPM | Pb PPM | Zn PPM | Ag PPM | Ni PPM | Co PPM | Mn PPM | Fe % | As PPM | U PPM | Au PPM | Th PPM | Sr PPM | Cd PPM | Sb PPM | Bi PPM | V PPM | Ca % | P % | La PPM | Cr PPM | Mg % | Ba PPM | Ti % | B PPM | Al % | Na % | K % | W PPM | Au* PPB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BX 325N | 1 | 49 | 24 | 152 | .2 | 18 | 12 | 343 | 8.13 | 49 | 5 | ND | 2 | 4 | 1 | 2 | 2 | 92 | .01 | .045 | 6 | 34 | .58 | 22 | .01 | 2 | 4.81 | .01 | .02 | 1 | 4 |
| BX 300N | 3 | 33 | 15 | 220 | .1 | 13 | 16 | 549 | 6.88 | 30 | 5 | ND | 1 | 25 | 1 | 2 | 2 | 81 | .49 | .050 | 6 | 21 | .29 | 35 | .01 | 2 | 3.56 | .01 | .03 | 1 | 6 |
| BX 275N | 3 | 33 | 18 | 235 | .2 | 16 | 13 | 354 | 6.52 | 90 | 5 | ND | 1 | 24 | 1 | 2 | 2 | 72 | .53 | .042 | 8 | 23 | .32 | 31 | .01 | 2 | 3.35 | .01 | .04 | 1 | 1 |
| BX 250N | 2 | 43 | 23 | 142 | .1 | 17 | 12 | 304 | 7.95 | 48 | 5 | ND | 1 | 16 | 1 | 2 | 4 | 71 | .29 | .067 | 22 | 30 | .42 | 32 | .01 | 2 | 5.06 | .01 | .03 | 1 | 2 |
| BX 225N | 1 | 44 | 10 | 109 | .1 | 12 | 13 | 206 | 7.53 | 25 | 5 | ND | 2 | 3 | 1 | 2 | 3 | 88 | .01 | .040 | 7 | 21 | .21 | 20 | .01 | 2 | 3.89 | .01 | .03 | 1 | 2 |
| BX 200N | 4 | 35 | 17 | 149 | .1 | 15 | 11 | 486 | 6.84 | 40 | 5 | ND | 1 | 7 | 1 | 2 | 2 | 61 | .02 | .033 | 4 | 25 | .37 | 20 | .01 | 2 | 2.87 | .01 | .02 | 1 | 1 |
| BX 175N | 3 | 35 | 23 | 133 | .3 | 12 | 12 | 353 | 7.31 | 31 | 5 | ND | 1 | 9 | 1 | 2 | 3 | 79 | .07 | .055 | 5 | 20 | .36 | 19 | .01 | 4 | 3.48 | .01 | .03 | 1 | 3 |
| BX 150N | 4 | 40 | 13 | 94 | .3 | 10 | 11 | 246 | 7.56 | 24 | 5 | ND | 2 | 5 | 1 | 2 | 2 | 113 | .02 | .036 | 3 | 19 | .38 | 19 | .01 | 2 | 3.70 | .01 | .02 | 1 | 4 |
| BX 125N | 3 | 37 | 20 | 130 | .1 | 11 | 12 | 268 | 7.15 | 20 | 5 | ND | 1 | 5 | 1 | 2 | 2 | 102 | .02 | .034 | 5 | 19 | .46 | 30 | .01 | 2 | 4.82 | .01 | .03 | 1 | 4 |
| BX 100N | 14 | 47 | 20 | 119 | .1 | 8 | 16 | 300 | 7.22 | 46 | 5 | ND | 2 | 6 | 1 | 2 | 3 | 124 | .05 | .041 | 9 | 17 | .55 | 41 | .01 | 2 | 4.71 | .01 | .04 | 1 | 1 |
| BX 75N | 1 | 57 | 25 | 163 | .2 | 12 | 18 | 416 | 8.56 | 36 | 5 | ND | 2 | 6 | 1 | 2 | 3 | 127 | .04 | .050 | 6 | 19 | .72 | 64 | .02 | 4 | 6.07 | .01 | .04 | 1 | 2 |
| BX 50N | 4 | 41 | 22 | 142 | 1.0 | 10 | 11 | 350 | 7.75 | 27 | 5 | ND | 1 | 20 | 1 | 2 | 4 | 137 | .30 | .071 | 7 | 13 | .46 | 45 | .04 | 2 | 4.26 | .01 | .03 | 1 | 1 |
| BX 25N | 3 | 59 | 26 | 149 | .4 | 13 | 16 | 565 | 10.47 | 41 | 5 | ND | 2 | 8 | 1 | 2 | 2 | 155 | .05 | .055 | 4 | 21 | .77 | 52 | .06 | 2 | 5.64 | .01 | .04 | 1 | 1 |
| BX 150W | 1 | 59 | 24 | 169 | .1 | 12 | 17 | 787 | 6.82 | 9 | 5 | ND | 1 | 13 | 1 | 2 | 2 | 80 | .17 | .034 | 6 | 12 | 1.00 | 55 | .12 | 2 | 4.30 | .02 | .06 | 1 | 2 |
| BX 125W | 1 | 84 | 28 | 234 | .1 | 15 | 22 | 569 | 8.90 | 20 | 5 | ND | 2 | 9 | 1 | 2 | 2 | 108 | .05 | .050 | 8 | 18 | .78 | 85 | .05 | 3 | 6.50 | .01 | .04 | 2 | 2 |
| BX 100W | 1 | 75 | 33 | 206 | .1 | 13 | 19 | 526 | 8.23 | 17 | 5 | ND | 2 | 8 | 1 | 2 | 2 | 111 | .05 | .045 | 5 | 16 | .67 | 69 | .04 | 4 | 5.73 | .01 | .04 | 1 | 1 |
| BX 75W | 2 | 55 | 29 | 165 | .2 | 16 | 16 | 395 | 6.63 | 34 | 5 | ND | 1 | 6 | 1 | 3 | 2 | 87 | .03 | .046 | 4 | 20 | .89 | 64 | .02 | 4 | 6.16 | .01 | .03 | 1 | 2 |
| BX 50W | 3 | 40 | 32 | 92 | .4 | 11 | 11 | 277 | 6.81 | 98 | 5 | ND | 1 | 5 | 1 | 2 | 3 | 61 | .04 | .060 | 7 | 17 | .57 | 17 | .01 | 2 | 2.62 | .01 | .03 | 1 | 2 |
| BX 25W | 3 | 53 | 29 | 174 | .2 | 19 | 16 | 383 | 6.83 | 34 | 5 | ND | 2 | 7 | 1 | 2 | 2 | 92 | .04 | .039 | 4 | 21 | .93 | 62 | .02 | 3 | 5.79 | .01 | .03 | 1 | 2 |
| BX 0E | 3 | 55 | 34 | 175 | .2 | 19 | 17 | 365 | 6.88 | 35 | 5 | ND | 2 | 7 | 1 | 4 | 3 | 91 | .04 | .045 | 4 | 22 | .93 | 61 | .01 | 2 | 5.63 | .01 | .04 | 1 | 3 |
| BX 25E | 3 | 54 | 24 | 175 | .1 | 16 | 16 | 372 | 6.71 | 28 | 5 | ND | 2 | 6 | 1 | 2 | 2 | 88 | .03 | .046 | 4 | 21 | .92 | 56 | .01 | 2 | 5.88 | .01 | .03 | 1 | 2 |
| BX 50E | 3 | 61 | 28 | 169 | .1 | 14 | 17 | 607 | 7.19 | 28 | 5 | ND | 2 | 8 | 1 | 2 | 2 | 109 | .04 | .060 | 8 | 16 | .84 | 53 | .02 | 2 | 4.61 | .01 | .04 | 1 | 1 |
| BX 75E | 3 | 50 | 21 | 149 | .1 | 11 | 14 | 403 | 7.03 | 34 | 5 | ND | 1 | 6 | 1 | 2 | 2 | 107 | .03 | .055 | 5 | 16 | .69 | 41 | .02 | 2 | 4.18 | .01 | .03 | 1 | 1 |
| BX 100E | 4 | 96 | 36 | 589 | .1 | 26 | 15 | 330 | 8.42 | 50 | 5 | ND | 2 | 9 | 1 | 2 | 2 | 66 | .04 | .062 | 4 | 24 | .70 | 29 | .01 | 2 | 4.48 | .01 | .04 | 1 | 1 |
| BX 125E | 1 | 703 | 8 | 124 | .5 | 131 | 44 | 1200 | 9.19 | 77 | 5 | ND | 1 | 73 | 1 | 2 | 2 | 80 | 5.14 | .048 | 6 | 62 | 2.31 | 33 | .13 | 7 | 3.12 | .02 | .05 | 1 | 1120 |
| STD C/AU-S | 18 | 60 | 43 | 132 | 6.6 | 70 | 31 | 1019 | 4.14 | 41 | 18 | 8 | 37 | 48 | 18 | 19 | 18 | 58 | .49 | .092 | 39 | 56 | .94 | 176 | .06 | 36 | 2.03 | .06 | .13 | 12 | 49 |

JAMES W. LAIRD PROJECT BLUE OX FILE # 88-5500



| SAMPLE# | Mo PPM | Cu PPM | Pb PPM | Zn PPM | Ag PPM | Ni PPM | Co PPM | Mn PPM | Fe % | As PPM | U PPM | Au PPM | Th PPM | Sr PPM | Cd PPM | Sb PPM | Bi PPM | V PPM | Ca % | P % | La PPM | Cr PPM | Mg % | Ba PPM | Ti % | B PPM | Al % | Na % | K % | W PPM | Au* PPB | Cu % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BX -1 | 3 | 13428✓ | 26 | 137 | 11.1 | 5 | 6 | 310 | 1.87 | 35 | 5 | ND | 1 | 10 | 3 | 4 | 3 | 2 | .37 | .009 | 4 | 2 | .02 | 27 | .01 | 4 | .12 | .01 | .04 | 1 | 66 | 1.42 |

✓ Assay required for correct result

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To : TAYWIN RESOURCE

105 - 1285 W. PENDER ST.
VANCOUVER, BC
V6E 4B1

Project : BLUE OX
Comments: CC: JAMES W LAIRD

**Page No. :1
Tot. Pages:1
Date :16-M
Invoice # :I-89
P.O. # :198

# CERTIFICATE OF ANALYSIS A8915615

| SAMPLE DESCRIPTION | PREP CODE | | Au FA oz/T | Au ppb FA+AA | Ag FA oz/T | Ag ppm Aqua R | Cu % | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EXC-1 409809 | 208 | -- | ----- | 260 | ----- | 72.0 | 1.74 | | | | |
| EXR-2 409808 | 208 | -- | 0.012 | ----- | 2.01 | ----- | 13.50 | | | | |

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY B.C. CERTIFIED ASSAYERS

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TO : TATWIN RESOURCES

105 - 1285 W.
VANCOUVER, BC
V6E 4B1

Project : BLUE OX
Comments: CC: JAMES W LAIRD

**Page No. : 1-E
Tot. Pages: 1
Date : 11-
Invoice # : I-8
P.O. # : 198

# CERTIFICATE OF ANALYSIS A8915611

| SAMPLE DESCRIPTION | PREP CODE | | Mo ppm | Na % | Ni ppm | P ppm | Pb ppm | Sb ppm | Sc ppm | Sr ppm | Ti % | Tl ppm | U ppm | V ppm | W ppm | Zn ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OX-1 409805 | 205 | 238 | < 1 | 0.03 | 9 | 760 | 8 | < 5 | 13 | 117 | 0.13 | < 10 | < 10 | 131 | 10 | >10000 |
| OX-2 409806 | 205 | 238 | < 1 | 0.01 | 2 | 310 | 8 | 5 | 6 | 179 | < 0.01 | < 10 | < 10 | 9 | < 10 | 224 |
| EXC-2 409810 | 205 | 238 | 2 | 0.01 | 3 | 630 | 4 | < 5 | 1 | 30 | < 0.01 | < 10 | < 10 | 1 | < 10 | 58 |
| EXR-1 409807 | 205 | 238 | 2 | 0.01 | 1 | 1050 | 4 | < 5 | 1 | 8 | < 0.01 | < 10 | < 10 | 1 | < 10 | 146 |

CERTIFICATION : f

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10 : TAYWIN RESOURCES

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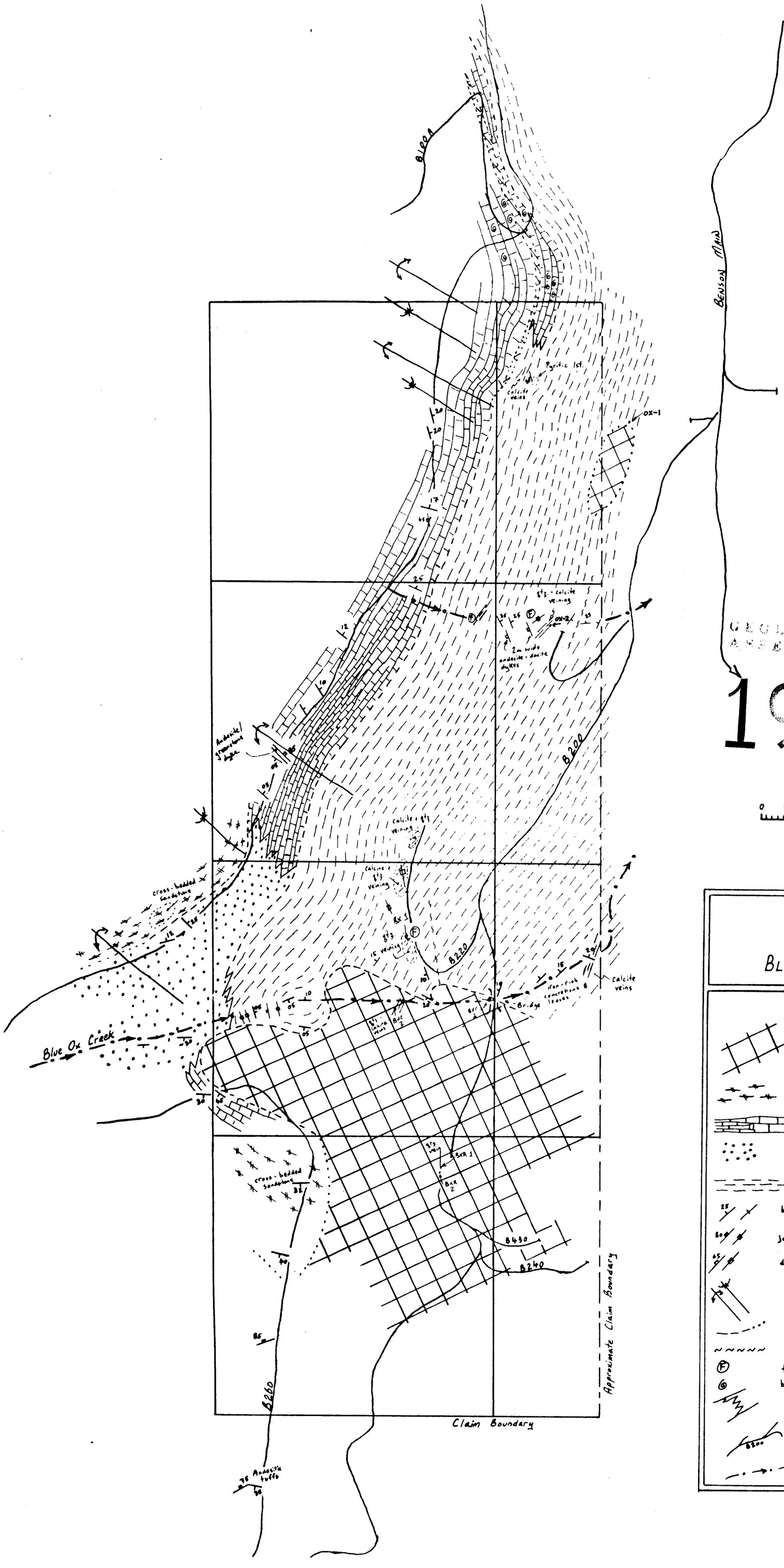
**Page No. : 1-A
Tot. Pages: 1
Date : 11-M
Invoice # : I-89
P.O. # : 1989-

# CERTIFICATE OF ANALYSIS A8915613

| SAMPLE DESCRIPTION | PREP CODE | | Au ppb FA+AA | Al % | Ag ppm | As ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | Ga ppm | Hg ppm | K % | La ppm | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OX-1 409805 | 205 | 238 | < 5 | 1.80 | 0.8 | 20 | < 10 | 0.5 | 4 | 13.15 | >100.0 | 17 | 23 | 971 | 3.05 | < 10 | < 1 | 0.01 | < 10 | 1.7 |
| OX-2 409806 | 205 | 238 | < 5 | 0.31 | < 0.2 | 5 | 10 | < 0.5 | 2 | 14.25 | 2.5 | 6 | 52 | 1135 | 0.97 | < 10 | < 1 | 0.08 | < 10 | 0.1 |
| EXC-2 409810 | 205 | 238 | < 5 | 0.34 | < 0.2 | 50 | 10 | < 0.5 | < 2 | 3.45 | 0.5 | 9 | 162 | 401 | 0.68 | < 10 | < 1 | 0.14 | < 10 | 0.0 |
| EXR-1 409807 | 205 | 238 | 10 | 0.62 | 1.2 | 35 | 10 | < 0.5 | < 2 | 0.54 | 2.0 | 4 | 71 | 630 | 1.24 | < 10 | 1 | 0.27 | < 10 | 0.0 |

CERTIFICATION :




GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,217

0 50 100 150 200 300 400 500

METRES

(Scale - 1:5,000)

# FIGURE 5

## BLUE OX GROUP GEOLOGY

### KEY

Bonanza Fm. ; andesites + amygdaloidal andesites

Harbledown Fm.; non-calcareous sandstones ; cross-bedded sandstones; non-calcareous argillites

Parson Bay Fm.
- limestone (up to 1.5m thick beds) ; often bioturbated ; rare pyrite-rich zones
- argillite; black & calcareous ; laminated with some limestone concretions ; sandy lenses and interbeds ; rare conglomerates; fossiliferous bedding
- limestone ; black calcareous argillites ; iron-rich concretions and lenses ; bedding up to 0.15m thick

bedding (inclined ; vertical)

jointing ;

dyke (inclined ; vertical) ; mostly andesite - possible feeders to Bonanza Volcanics

fold axis (anticline ; syncline)

geologic contact (approximate ; assumed)

fault / shear zone

F fossil locality

6 bioturbation in limestone

facies change / boundary

8800 logging road

stream / creek and direction