GEOCHEMICAL REPORT

DAWN GROUP

Nicola Mining Division

NTS: 92H/15E
Latitude: 49°57'N
Longitude: 120°37'W

OWNER/OPERATOR: International Northair Mines Ltd.
860 - 625 Howe St.
Vancouver, B.C.
V6C 2T6

REPORT BY: Dave Visagie, B.Sc.
October 15, 1991

INM91-411

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1.0 INTRODUCTION

The Shear property, comprising 100 claim units, is located adjacent to the east of the village of Aspen Grove, southwestern B.C. occurring on the Thompson Plateau approximately 30 kilometres southeast of Merritt and 60 kilometres north of Princeton. Two paved highways and numerous ranching roads provide access throughout the claims.

The claims occurs in the Aspen Grove Copper Camp, an area that saw limited copper production in the early part of the century and has since then been intermittently explored primarily for copper. Work to date by several companies includes sampling, mapping, trenching, geophysical and geochemical surveying along with limited drilling and excavation on various claims, parts of which now make up the Shear property.

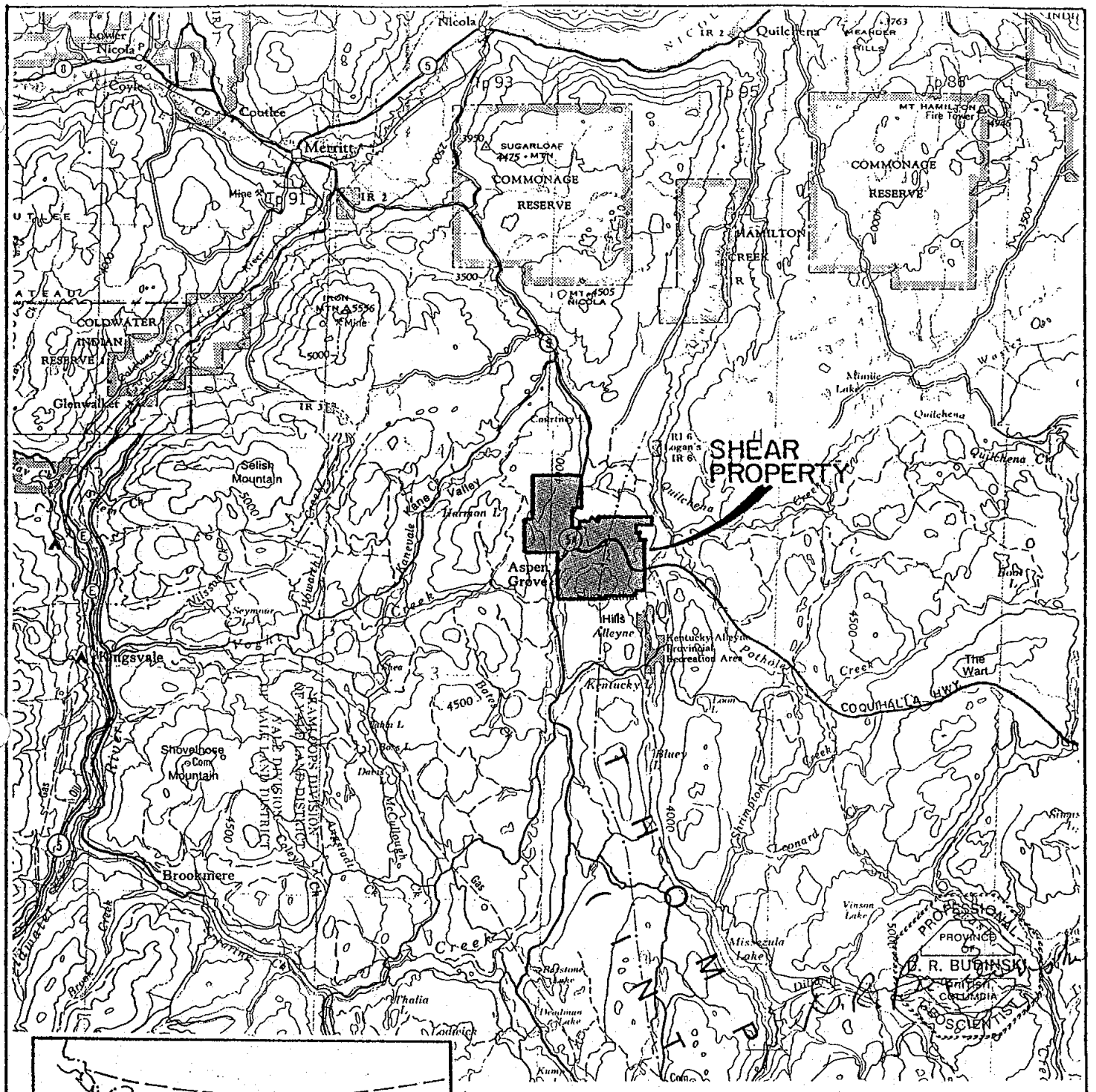
The claims are underlain by altered Triassic Nicola Group volcanics locally consisting of andesite and basalts that have been intruded by monzonitic to dioritic intrusives. Porphyry style copper mineralization is widespread usually consisting of chalcopyrite, associated with pyrite along with minor chalcocite, bornite, cuprite and native copper. As part of a preliminary evaluation a total of 46 rock chip and three soil samples were taken and sent out for analysis. The results show widespread copper with, on occasion, significant gold to occur throughout the property.

2.0 LOCATION, PHYSIOGRAPHY AND ACCESS

The Shear property, comprising 100 units in three contiguous claim blocks, is situated immediately north and east of Aspen Grove, approximately 30 kilometres southeast of Merritt and 60 kilometres north of Princeton (Figure 1). Aspen Grove a small ranching community located on paved Provincial Highway No. 5 which bisects the property in a north-south direction. The four-lane Coquihalla Okanagan connector highway between Aspen Grove and Peachland bisects the property in an east-west direction. A network of old ranching, mining and logging roads provides good access to most parts of the claims. The claims are centred at 120°37'W, 49°57'N occurring on NTS sheet 92H/15E.

Local topography is dominated by gently rolling and heavily wooded upper slopes cut by deep V-shaped north-south valleys. Maximum relief is approximately 350 metres with elevations on the property ranging from 1000 to 1350 metres.

Vegetation consist of Aspen and Ponderosa Pine occupying the upper slopes while grasses, willows, and small shrubs predominate the broad uplands and valleys. Small lakes and streams dot the landscape.



ORCAN MINERAL ASSOCIATES LTD. CONSULTANTS
VANCOUVER, CANADA

NORTHAIR MINES LTD.

SHEAR PROPERTY

LOCATION MAP

NICOLA M.D., B.C. N.T.S. 92H-15

SCALE 1:250,000	AUGUST 1991	FIG. 1

CHONG

3.0 PROPERTY DESCRIPTION

The property consists of 100 units in 20 contiguous claims encompassing approximately 20 square kilometres (Figure 2). All of the claims occur in the Nicola Mining Division. International Northair Mines Ltd., which holds options to acquire a 60% joint venture interest in the Shear claims and a 100% interest in the Dawn and Halo claims, is acting as the operator.

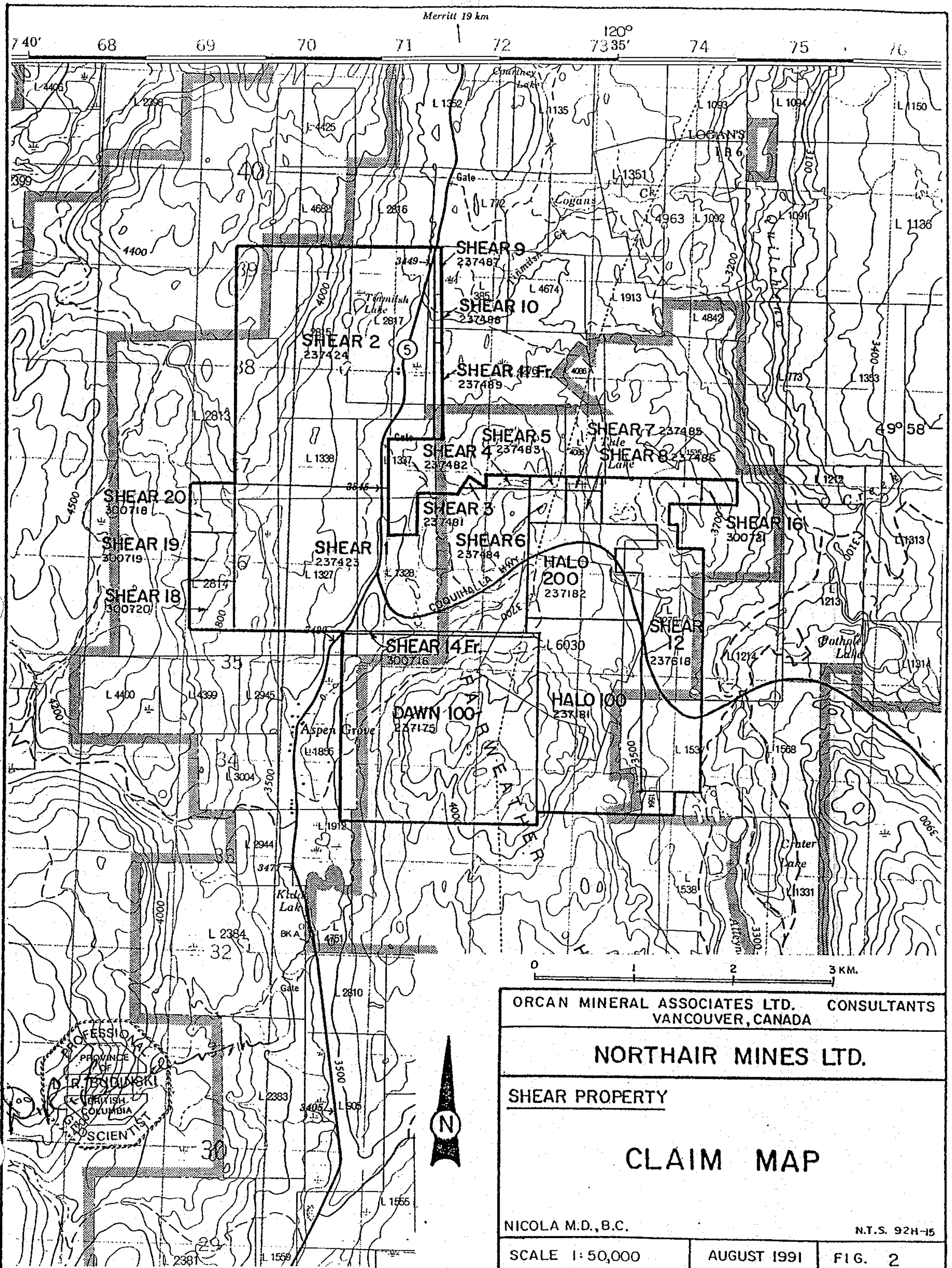
The following is a listing of all claims comprising the Shear property:

Claim	Record #	Units	Expiry Date
Shear 1	237423	18	Oct. 22, 92
Shear 2	237424	20	Nov. 1, 92
Shear 3	237481	1	Feb. 24, 93
Shear 4	237482	1	Feb. 24, 93
Shear 5	237483	1	Feb. 24, 93
Shear 6	237484	1	Feb. 24, 93
Shear 7	237485	1	Feb. 24, 93
Shear 8	237486	1	Feb. 24, 93
Shear 9	237487	1	Feb. 24, 93
Shear 10	237488	1	Feb. 24, 93
Shear 11 Fr.	237489	1	Feb. 24, 93
Shear 12	237618	14	Jan. 11, 92
Shear 14 Fr.	300716	1	June 1, 92
Shear 16	300721	1	June 1, 92
Shear 18	300720	1	June 11, 92
Shear 19	300719	1	June 11, 92
Shear 20	300718	1	June 11, 92
Dawn #100	237175	16	Aug. 28, 92
Halo 100	237181	12	Feb. 11, 93
Halo 200	237182	6	Feb. 11, 93

For assessment purposes the Dawn 100, Halo 100 and 200 were grouped as the Dawn Group.

4.0 HISTORY

The Aspen Grove area with its unusually large concentration of copper occurrences is generally referred to as the Aspen Grove Copper Camp. It has been intermittently explored since the early 1900's and, although a large number of copper discoveries have been made, there has been very little production to date.


Merritt 19 km
120°
SHEAR 9
237487
SHEAR 10
237488
SHEAR 2
237424
SHEAR 11 Fr.
237489
SHEAR 5
237483
SHEAR 7 237485
SHEAR 4
237482
SHEAR 8 237486
SHEAR 20
300718
SHEAR 3
237481
SHEAR 16
300721
SHEAR 19
300719
SHEAR 1
237423
SHEAR 6
237484
HALO 200
237182
SHEAR 18
300720
COQUIHALLA HWY.
SHEAR 14 Fr.
300716
SHEAR 12
237618
DAWN 100
237175
HALO 100
237181
Aspen Grove
Kidd Lake
Crater Lake
Pothole Lake
Logans Ck
Tule Lake
49° 58'
0 1 2 3 KM.
ORCAN MINERAL ASSOCIATES LTD. CONSULTANTS
VANCOUVER, CANADA
NORTHAIR MINES LTD.
SHEAR PROPERTY
CLAIM MAP
NICOLA M.D., B.C.
N.T.S. 92H-15
SCALE 1:50,000
AUGUST 1991
FIG. 2

Early exploration activity was quite intense from about 1912 to 1928, after which activity waned due to the onset of the Great Depression. It is reported that about 10 tons of copper ore containing 1,000 lbs copper was shipped from the Golden Sovereign mine in 1916. This was followed in 1918 by shipments of 44 tons containing 96 oz silver and 9,483 lbs copper from the Big Sioux, and 79 tons containing 2 oz gold, 86 oz silver and 8,156 lbs copper from the Copper King mine.

The area lay dormant until about the mid-1950's when porphyry copper deposits became popular exploration targets. The Big Kidd, Big Sioux, Blue Bird and Copper Belle showings received most of the attention by a number of companies including Noranda, Dawood Mines, Norranco, David Minerals, Kennco, and Amax. Although the exploration results of all work done by these companies are not available, the following provides an outline as to the scope of exploration during this period.

In 1956, Noranda optioned a block of claims covering the Big Kidd and Big Sioux deposits and conducted an extensive exploration program which included bulldozer trenching, surface sampling, geological mapping, self potential geophysics, and 3,913 feet of EX diamond drilling in nine holes. Noranda and associated companies worked on the claims intermittently until 1965, but results of this work are not known.

In 1965, Norranco Mining & Refining, a junior oil company from Calgary, staked claims over the Big Kidd and Big Sioux area. After completing a program of linecutting, magnetometer and IP surveying, the property was optioned in 1966 to David Minerals Ltd. who conducted legal surveys and drilled two holes into the Big Kidd breccia zone. Results are unknown.

In 1969, claims covering the Big Sioux-Big Kidd area were held by Frontier Exploration who drilled one BQ diamond drill hole into the Big Kidd breccia zone and then brought it to the attention of Kennco, however, Kennco was not interested in the big Kidd property but in 1971 optioned the Dote claims from Dawood Mines. These adjoined the Big Kidd claims to the southwest, but Kennco dropped these claims in 1971 after drilling several shallow percussion holes which returned very low copper values.

The area covering the Big Sioux-Big Kidd copper deposits was examined by Amax in 1970. The company conducted preliminary magnetometer surveys, detailed geological mapping, and soil geochemical survey in 1970-81. In 1972, Amax rehabilitated and surveyed the old Norranco grid, and conducted additional geochemistry, geophysics, and geological mapping. This was followed by a 23-hole percussion drilling program which failed to define any near surface mineralization of economic importance.

Exploration activity in the Aspen Grove Camp since Amax left the area has been sporadic and generally confined to assessment work on the Halo and Dawn claims. David Minerals conducted several small exploration programs during the ten year period, 1972-1982. This work, concentrated mainly on the Big Kidd breccia zone, consisted of bulldozer trenching, rehabilitation and sampling of old adits and trenches, mineralogical studies, minor geophysics and a few short diamond drill holes.

Other parts of the property, such as the Snowflake claims to the north, and other areas east and south of Aspen Grove, were intermittently explored for precious metals in the 1980's by several companies (Quilchena, Lornex, Gerle Gold), however, results were not encouraging.

A small drilling program (160 metres in three holes) was conducted on the Dawn 100 claim by Mr. C. Graham in June, 1988 to test the possible down dip projection of the Big Kidd mineral deposit, but results were negative.

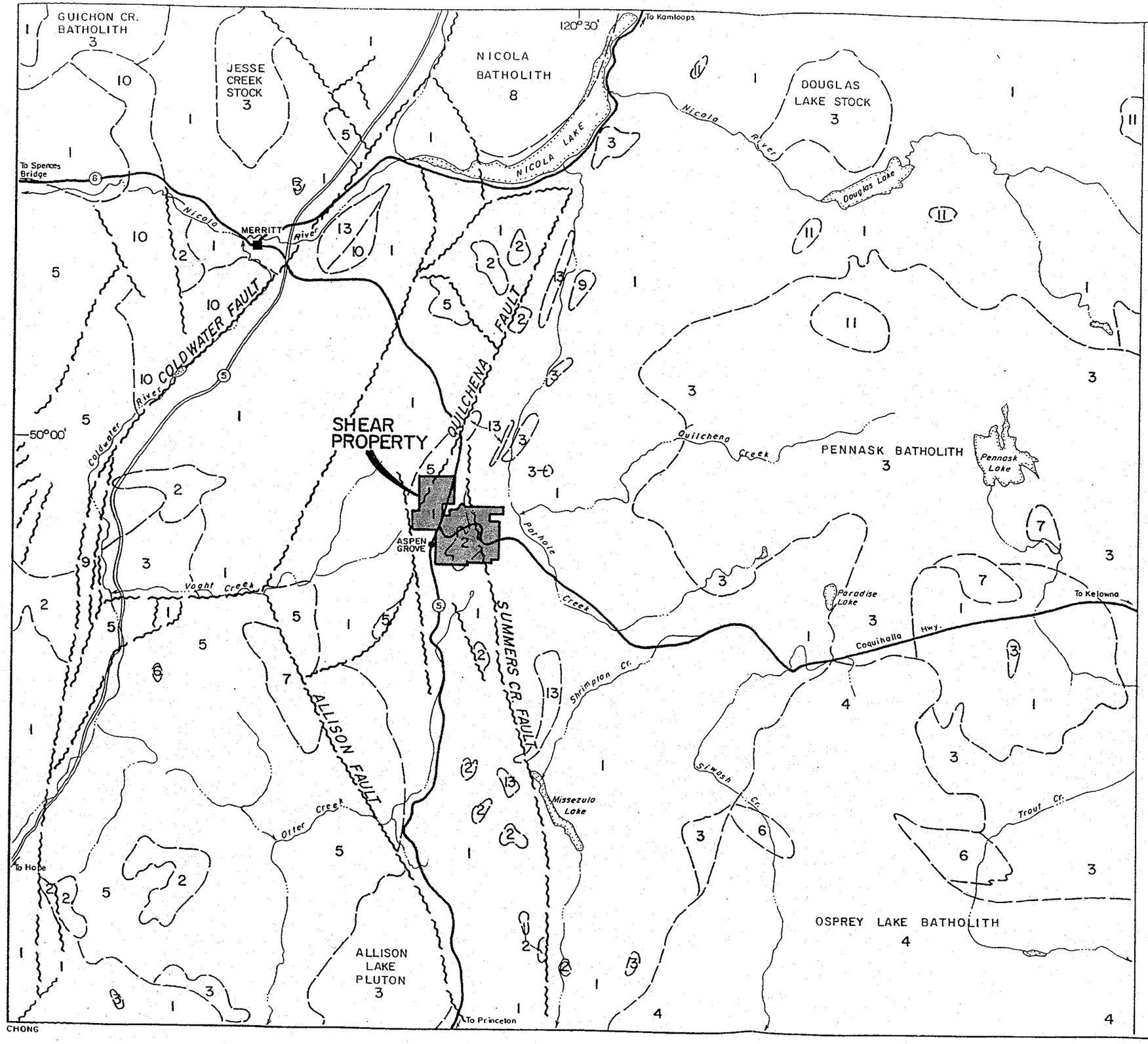
Interest in the Aspen Grove area was renewed in 1989 when construction of the Okanagan connector of the Coquihalla Highway resulted in a new copper-gold discovery in a road cut just east of Aspen Grove. This discovery was staked as the Shear claims.

5.0 REGIONAL GEOLOGY

The geology of the Aspen Grove area has been mapped in considerable detail during the past 30 years or so, with the most recent work published in BCMEM&PR Bulletin 69 by V.A. Preto (1979) and on GSC maps 41-1989 and 42-1989 by J.W.H. Monger (1989).

On a regional scale, the area between Merritt and Princeton is underlain by a succession of volcanic, sedimentary, and intrusive rocks ranging in age from late Triassic to Pleistocene (Figure 3). These units lie within the lithotectonic division known as the Quesnellia Terrane which in turn is one of several major subdivisions of the Intermontane Belt (Monger, 1989).

The oldest and most important rocks underlying the general area covered by the Shear property are the Upper Triassic Nicola Group (Unit 1). This unit is approximately 40 kilometres wide and extends from the International Boundary south of Princeton for 180 kilometres northward to Kamloops Lake, and then continues beneath Tertiary strata into northern B.C. and Yukon, correlating with the Takla and Stuhini volcanic units (Preto, 1979). Nicola rocks comprise a variety of volcanic and sedimentary facies intruded by a series of comagmatic plugs, dykes and plutons of diorite, granodiorite, syenite, and quartz monzonite. Most Nicola rocks are massive, non-foliated and relatively unmetamorphosed volcanic flows and pyroclastics, however, two north trending high angle fault systems divide the group into three distinctive subparallel assemblages.



QUATERNARY
PLEISTOCENE
13 Valley basalt; vesicular olivine basalt

TERTIARY
MIOCENE
12 Plateau basalt; olivine basalt, tuff

EOCENE
KAMLOOPS GROUP
11 Basalt & andesite, local rhyolite breccia, tuff, sandstone
PRINCETON GROUP
10 Interm. mafic & felsic flows, volcaniclastics
9 Sandstone, conglomerate & coal

8 Granodiorite, quartz monzonite
7 Intermed. flows, local mafic & felsic flows

EARLY TERTIARY
6 Granodioritic & intermed. intrusions

CRETACEOUS
SPENCES BRIDGE GROUP
5 Interm. felsic & mafic volcanics, sandstone, shale, conglomerate

JURASSIC
4 Granite & granodiorite, abund. pink feldspar mega crysts

LATE TRIASSIC/EARLY JURASSIC
3 Granodiorite (Allison Lake, Mt. Lytton Complexes)
2 Small dioritic plutons in Nicola Group

LATE TRIASSIC
NICOLA GROUP
1 Western volc. facies, felsic to interm. pyrocl., arg. carbonate
Central " " , interm. feldspar & aug. porph. flows
Eastern " " , mafic aug. & hbl. porph. flows
Sedim. facies, arg. sandstone carb., tuff, congl. & breccia
Minor undiff. mafic/felsic volc., amphib., schist & marble

Contact
Fault
Lake
Creek or river
Highway

After Monger, J.W.H., 1989, G.S.C.

0 5 10 15 KM.

N

NORTHAIR MINES LTD.

SHEAR PROPERTY

REGIONAL GEOLOGY

NICOLA M.D., B.C. N.T.S. 92H-15

SCALE 1:250,000	AUGUST 1991	FIG. 3

These have been designated as the Eastern, Central and Western Belts by both Preto and Monger. In addition to the volcanic units, the Nicola group also has a sedimentary facies comprising argillites, sandstones, limestones, tuffs, conglomerates and breccias.

The Nicola group is overlain on its western flank by intermediate felsic and mafic volcanics interbedded with sandstones, shales and conglomerates of the Spences Bridge Group (Unit 5). These are Late Cretaceous arc volcanics of entirely continental origin that have been preserved in structural depressions. Eocene arc volcanic rocks of the Princeton Group (Units 7,9, and 10) and Kamloops Group (Unit 11) overlie Nicola rocks on the eastern and western margins of the map area. The youngest rocks in the area are scattered outliers of Miocene plateau basalts (Unit 12) and narrow strips or wedges of Pleistocene valley basalt (Unit 13).

Intrusive rocks comprising small dioritic plutons (Unit 2); granodiorites of the Pennask and Guichone Creek batholiths, Allison Lake, Jesse Lake, and Douglas Lake stocks (Unit 3); and granites and granodiorites of the Osprey Lake batholith (Unit 4) are believed to be of Triassic/Jurassic age and therefore comagmatic with Nicola Group volcanics. Younger intrusive rocks include Early Tertiary granodiorites (Unit 6) and Eocene granodiorites and quartz monzonites of the Nicola batholith (Unit 8).

Several northerly trending major fault systems are the dominant structural features in the Aspen Grove area. The main ones that may be of potential economic significance are the Allison Lake, Quilchena, and Summers Creek faults. Movements along these major deepseated structures probably caused the north-south alignment of volcanic centres, and may have provided the source of some of the intrusive stocks associated with the Nicola Group. Intense faulting and fracturing between the Allison and Summers Creek fault systems are probably responsible for the concentrated distribution of mineral deposits in the Aspen Grove Copper Camp.

Most Nicola Group rocks are generally massive and only weakly altered; however, the degree of alteration can be highly variable. Higher metamorphic grades may be developed locally near intrusions and along major faults and shear zones. As a rule, the fresh basaltic subaerial rocks usually contain slightly altered augite and plagioclase phenocrysts, whereas the dark greek submarine basalts and andesites are more altered and contain abundant epidote, actinolite, chlorite, albitized plagioclase, and calcite. Other common alteration minerals include potassium feldspar, hematite, minor quartz, sphene and garnet.

The distribution of copper occurrences in the Aspen Grove area is directly related to the strong structural controls imposed by the Allison and Summers Creek fault systems. Intermittent movements along those structures provided the conduits for vulcanism and intrusions of granitic, dioritic and syenitic rocks with which most of the known mineral occurrences are closely associated.

6.0 PROPERTY GEOLOGY (Figure 4)

The Shear property is underlain primarily by rocks of the Upper Triassic Nicola Group, particularly units comprising the Central Belt. Only the extreme northwest corner of the claim group is covered by younger sediments of Upper Triassic to Lower Cretaceous age and by volcanic flows of the Lower Cretaceous Kingsvale Group (Figure 4). These younger units are separated from Nicola rocks by the north-northeast trending Allison fault system. Several small batholiths, stocks, and dykes are coeval with and intrude Nicola Group rocks. The Nicola Group in the Aspen Grove area is divided into three distinct belts: Western, Central and Eastern. The Western Belt, which is present a few kilometres to the south but not on the property, consists of calc-alkaline flows, pyroclastics, epiclastic sediments, and limestone. It is separated from the alkaline Central Belt by the Allison Fault. The Central Belt is separated from the Eastern Belt by the Kentucky-Alleyne fault system. Eastern Belt rocks, consisting of volcanic sandstones, siltstones, tuffs, and lahar deposits, are only present in the extreme southeast corner of the property.

6.1 Lithology

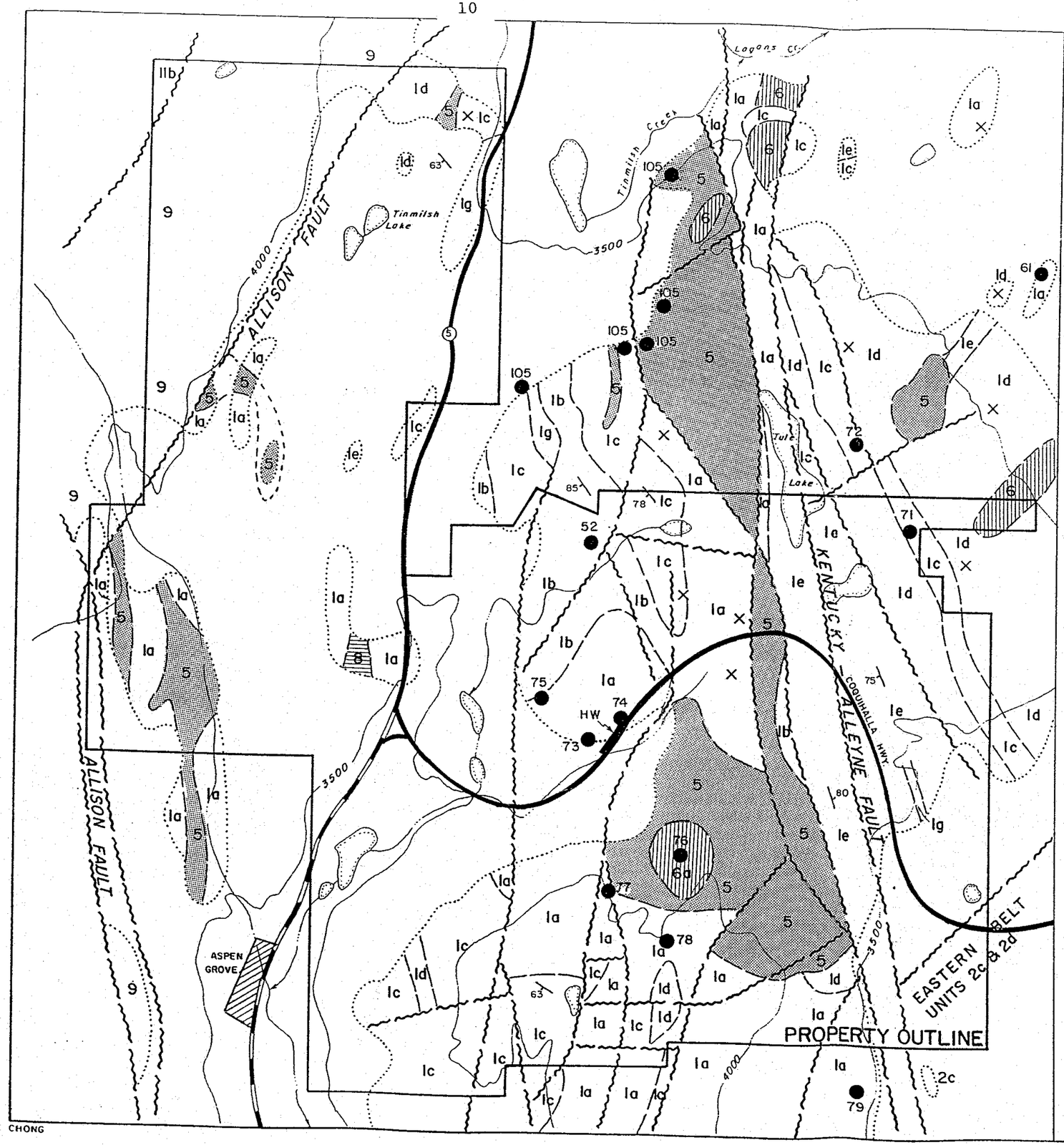
Nicola Group - Central Belt

Units 1a and 1b, which are the dominant varieties of Nicola Group rocks in the Central Belt within the Shear claim area, are primarily dark green intermediate feldspar and feldspar augite porphyry, pyroclastics, volcanic flows and local breccias. Most of the volcanic flow rocks have been mapped as alkaline trachybasalts, while andesites and more acid varieties make up only 10-15%. The basic flows commonly contain large percentages of augite (up to 50%) with plagioclase, hornblende, and biotite being less common to rare.

Units 1c and 1d are predominantly red and green volcanic breccias, lahars and in some places, volcanic conglomerates. Red lahars are associated with purple and maroon subaerial flows, while green lahars which occur as thick sequences intercalated with limestone are associated with submarine flows. Laharic breccias are generally massive, but may show crude bedding and poorly sorted rounded clasts surrounded by matrix.

Unit 1e consists of well-bedded crystal and lithic tuff, generally interlayered with flows and volcanic breccias. Their widespread and uniform distribution and well-developed bedding suggests that their disposition probably occurred as air falls in shallow basins over a long period of time.

Unit 1g is a sedimentary unit of limited extent which comprises dark green siltstone, sandstone, and pebble conglomerate which may be massive or show graded bedding. Argillite is also locally present. This unit marks the base of the Nicola Group.



LOWER CRETACEOUS

10, 11 KINGSVALE GROUP

11b PLAGIOCLASE AND AUGITE–PLAGIOCLASE ANDESITE AND BASALT PORPHYRY SILLS AND/OR FLOWS

UPPER JURASSIC TO LOWER CRETACEOUS

9 CHERT PEBBLE AND COBBLE CONGLOMERATE; MINOR INTERBEDDED GRIT AND SANDSTONE

LOWER JURASSIC OR LATER

8 PENNASK BATHOLITH: BIOTITE–HORNBLENDE GRANODIORITE AND QUARTZ MONZONITE

UPPER TRIASSIC TO LOWER JURASSIC

6 PINK AND GREY MONZONITE AND SYENITE, MEDIUM–GRAINED AND GENERALLY PORPHYRITIC; FINE–GRAINED GREY DACITE

MONZONITE AND SYENITE BRECCIA

5 DIORITE, QUARTZ DIORITE, MONZONITE, AND DIORITE BRECCIA; MINOR FINE–GRAINED HORNBLENDE PORPHYRY

UPPER TRIASSIC

1,2,3 NICOLA GROUP

EASTERN BELT

2c VOLCANIC SANDSTONE AND SILTSTONE, MINOR TUFF

2d MASSIVE TO CRUDELY LAYERED LAHAR DEPOSITS, MINOR CONGLOMERATE

CENTRAL BELT

1a REDDISH TO GREEN AUGITE–PLAGIOCLASE ANDESITE AND BASALT FLOWS; OCCASIONAL ANALCITE–BEARING TRACHYBASALT

1b AUTOBRECCIATED EQUIVALENTS OF 1a

1c RED VOLCANIC BRECCIA AND LAHAR DEPOSITS, MOSTLY MASSIVE

1d GREEN VOLCANIC BRECCIA AND LAHAR DEPOSITS, MOSTLY MASSIVE

1e CRYSTAL AND LITHIC TUFF, GENERALLY WELL BEDDED

1g WELL–BEDDED SILTSTONE, SANDSTONE, AND ARGILLITE; MINOR GRITSTONE AND PEBBLE CONGLOMERATE

MINERAL DEPOSITS

105 Blue Jay
76 Big Kid
52 Tab
72 Golden Sovereign
71 Big Dutchman
61 June
74 Big Sioux
73 Giant
75 Maggie
77 Blue Bird
78 Copper Belle
79 Copper Standard
HW Highway Showing

71 Mineral deposit with Min. File No.

× Mineral occurrence

4000 Contour in feet

Stream

Lake or pond

Limit of outcrop

Geological contact

Fault

Attitude of bedding

0 500 1000 1500 METRES

After V.A. Preto, 1979

PROFESSIONAL GEOSCIENTIST — PROVINCE OF BRITISH COLUMBIA — D. R. BIDINSKI

CHONG

NORTHAIR MINES LTD.

SHEAR PROPERTY

PROPERTY GEOLOGY

NICOLA M.D., B.C. N.T.S. 92H-15

SCALE 1:25,000 | AUGUST 1991 | FIG. 4

Nicola Group - Eastern Belt

Rocks of this structural subdivision comprise submarine volcanic sedimentary rocks and massive to poorly bedded lahar deposits with minor conglomerates.

Unit 2c is a fine-grained, thin-bedded tuffaceous volcanic sandstone and siltstone sometimes interbedded with coarser-grained laharic deposits. This unit is an epiclastic deposit composed of reworked volcanic detritus derived from older volcanic rocks in the Eastern Belt.

Unit 2d consists of massive and crudely-bedded lahar deposits in places interbedded with volcanic conglomerates and greywacke. It is the most widespread and abundant rock unit in the Eastern Belt but does not occur on Figure 4.

Undifferentiated

Unit 9 is a sedimentary unit of Upper Triassic to Lower Cretaceous age which is not part of the Nicola Group. It consists of chert pebble conglomerate with minor interbedded grit and sandstone. It occurs as a thick, fault-bounded block about three kilometres north of Aspen Grove where it lies against the Allison Fault. It is believed that the conglomerate unconformably overlies Nicola rocks and is in turn unconformably overlain by Unit 11.

Kingsvale Group

Unit 11b, which is present in the extreme northwest corner of the Shear claim group, consists of augite-plagioclase porphyry interlayered with basalts and andesites of Lower Cretaceous age. The intrusives are similar in composition to the flow rocks and may represent feeders of the Kingsvale volcanic pile.

Intrusive Rocks

Intrusive rocks in the Central Belt belong to the alkaline suite and range in age from Upper Triassic to Lower Jurassic. The oldest plutonic rocks are similar in composition to Nicola volcanic rocks and are thought to be comagmatic with them. The Pennask batholith, which cuts Nicola rocks, is clearly younger.

Unit 5 rocks, consisting of fine to medium grained diorite, quartz diorite, monzonite, and syenodiorite, occur as elongated, structurally controlled stocks and irregular bodies within Nicola Group rocks mainly in the Central Belt. Contacts between the intrusive and volcanic rocks are usually fault controlled or sharply intrusive, however, in some of the larger plutons, the contacts may be gradational with intense alteration of the volcanics. All Unit 5 stocks are similar in composition to the enclosing Nicola volcanics, and orientation is parallel to the main fault or bedding trends in the volcanics.

Preto observed that most of the plutons in the Aspen Grove area are lithologically similar to the dioritic intrusive rocks at Copper Mountain and at Afton, both of which are also comagmatic with the surrounding volcanic country rocks.

Units 6 and 6a consist of small stocks of grey-green to pink medium grained porphyritic monzonite and syenite and small pipes of monzonite and syenite breccia. These rocks are composed of zoned plagioclase, augite pyroxene, and variable amounts of potash-feldspar, but chlorite and epidote alteration of pyroxene and sericitization of plagioclase is common. The Big Kidd breccia pipe (Unit 6a), located about 2.5 kilometres east of Aspen Grove, is a variety of this unit, which contains fragments of porphyry and of country rock in an intensely propylitized matrix. The pipe is variably mineralized and is thought to be an intrusive breccia. These intrusions are believed to be coeval with and genetically related to the surrounding Nicola rocks.

Unit 8, which comprises granitic rocks of the Pennask batholith, outcrops as only one small plug just north and west of the junction of Highway 5 and the Coquihalla Highway. The unit consists of biotite-hornblende granodiorite locally cut by felsic dykes. The unit is of Early Jurassic age.

6.2 Structure

The dominant structural features are the large, northerly trending high angle fault systems. Nicola volcanic rocks are generally massive and brittle, and it is believed that intermittent movements along these deep-seated faults over a long period of time were responsible for controlling the distribution of volcanic and intrusive rocks from Early Triassic to at least middle Eocene time.

Although large scale northerly trending folding in the Princeton map area has been postulated by Rice (1947) and Cockfield (1948), there does not appear to be any recognizable folding of bedded members of the nicola Group in the Aspen Grove area. Because of the generally massive nature of Nicola volcanic rocks, attitudes are difficult to measure; however, the tuffaceous rocks (Unit 1e) in the eastern part of the Shear property appear to strike north-northwest parallel to the Alleyne fault with near vertical dips. Some of the lava flows in units 1a, b, and c just west of the Tule Lake also strike northwesterly with steep dips to the west.

6.3 Alteration

On the Shear property, alteration products such as epidote, chlorite, and calcite are ubiquitous in Nicola rocks; however, other important alteration types are also present. these include, for example, pyritic zones surrounding the big Kidd breccia pipe and magnetite associated with zones of copper mineralization. Kspar and propylitic alteration are present within and adjacent to the Big Kidd monzonitic breccia pipe. Propylitic alteration marked by fracture controlled epidote is also present at the Big Sioux deposit (Map No. 74) approximately one kilometre north of the Big Kidd breccia pipe.

6.4 Mineralization

Based on Preto's classification, the most important types of copper mineralization on the Shear property from an economic standpoint are:

(a) Chalcopyrite and pyrite or chalcopyrite-bornite and native copper which are disseminated along fractures and zones of brecciation in dioritic and monzonitic intrusions (Units 5 and 6) and in adjacent Nicola volcanic rocks. This type of mineralization is also present in some of the large property deposits in the Princeton-Merritt Copper Belt.

(b) Chalcopyrite-bornite-pyrite and magnetite in breccia pipes (Unit 6). The Big Kidd deposit (Map No. 13) is the best known example of this type of mineralization and is believed to represent a very large hydrothermal system which is similar to mineralized bodies at the Copper Mountain and Afton mines near princeton and Kamloops, respectively.

Some other types of mineralization on the property include chalcocite-bornite-chalcopyrite in tiny fractures in Nicola basalts and andesites near major north-south fault zones; chalcocite-native copper-bornite-chalcopyrite-pyrite and hematite in fractures in laharic deposits; and chalcocite-bornite-chalcopyrite and pyrite in fractured and brecciated zones in massive Nicola volcanic rocks.

Gold mineralization is believed to be fracture controlled and closely associated with chalcopyrite and pyrite. However, this is not clearly understood.

7.0 1991 WORK PROGRAM

The purpose of the initial phase of the 1991 work program was to sample various outcrops and trenches to determine the grade and tenor of the mineralized showings on the property. Although all sample results for gold and copper along with the location are plotted and described in Appendix 1 only those for the Dawn Group (35 rock and 3 soil samples) were submitted in the cost statement.

In July, Noranda Exploration spent one day evaluating the Big Kidd area with a two man crew from their Prince George office. The costs of their work has been included in the cost statement.

Eleven rock samples collected by International Northair Mines Ltd. were sent to Eco-Tech Labs, Kamloops, B.C. while those taken by Noranda were sent to Acme Labs, Vancouver, B.C.

8.0 GEOCHEMISTRY

8.1 Field Procedure

A total of 46 rock chip and three soil samples were collected in the course of the evaluation. The rock chip samples, weighing up to five kilograms each, were taken from outcrop or trenches as both grabs and from measured widths, identified and described and stored in plastic bags then sent for analysis. All soil samples were taken from the "A-B" horizon, at depth of up to one metre, using a mattock, stored in kraft paper bags then sent for analysis. The sample descriptions are listed in Appendix 1 while the results are located in Appendix 2.

8.2 Assay Procedure

All of the samples were sent to Kamloops for analysis by Eco-Tech Laboratories or to Vancouver for analysis by Acme Labs using the 30 element Inductively Coupled Plasma (I.C.P.) method with gold content being determined by atomic absorption. Samples that contained >1000 ppb Au, 30 ppm Ag, or 10,000 Cu, Pb, or Zn were assayed.

The following is an outline of the procedure used for the preparation and analysis of the samples:

Samples dried (if necessary), crushed or sieved to pulp size and pulverized to approximately -140 mesh.

For the 30 element I.C.P. analysis, a 10 gram sample is digested with 3 ml of 3:1:3 nitric acid to hydrochloric acid to water at 90° C for 1.5 hours. The sample is then diluted to 20 mls with demineralized water and analyzed. The leach is partial for Al, B, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, Q, Sb, Ti, U, and W.

For gold determination by atomic absorption, a 10 gram sample that has been ignited overnight at 600° C is digested with hot dilute aqua regia and the clear solution obtained is extracted with Methyl Isobutyl Ketone (MIBK). Gold is determined in the MIBK extract by atomic absorption using a background detection (detection limit 5ppb). Samples that contained 1000 ppb Au were assayed using conventional fire assay while those assaying >5000 ppb Au were screened for metallics.

For copper assay, the samples are digested by aqua regia with the samples being analyzed by atomic absorption.

8.3 Results

The results of the sampling program show the Dawn Group to host several areas of anomalous copper +/- gold geochemistry, namely the Big Kidd, Big Sioux and Bornite showings. On the Big Kidd selected grab samples of malachite stained magnetite pyrite bearing volcanic breccia assayed up to 1.36% Cu with 320 ppb Au. Several samples from the Bornite showing were taken over measured widths. Copper values of up to 9792 ppm over five metres and gold values of 515 ppb over two metres were located in the zone. Samples of float assayed up to 3.86% Cu with .231 opt Au.

Samples from the Big Sioux area indicate an anomalous zone of copper geochemistry to exist with the best measured section averaging 7725 ppm Cu and 600 ppb Au over five metres.

Soil sample results are largely negative throughout the property due to the depth of the A horizon.

9.0 SUMMARY AND CONCLUSIONS

The Shear property, comprising 100 claim units, is located adjacent to the community of Aspen Grove, southwestern B.C. It is on the Thompson Plateau approximately 30 kilometres southeast of Merritt and 60 kilometres north of Princeton. Two paved highways and numerous ranching roads provide excellent access. A total of 11 man-days, including travel time, were spent evaluating the Dawn Group. As a result, a total of 46 rock chip and three soil samples were taken.

The property lies in the Aspen Grove Copper Camp which saw only limited copper production but has been intermittently explored since the early 1900's primarily for copper. Work to date by several companies includes trenching, shafts, pits, geophysics, geochemistry, geological mapping, and drilling of various claims, parts of which now make up the Dawn Group.

Construction of the Okanagan portion of the Coquihalla Highway in 1989 resulted in exposing previously unknown gold-copper mineralization in a road cut. This led to the staking of the Shear claims in 1989.

The geology of the Aspen Grove area consists of Late Triassic volcanic, sedimentary, and intrusive Nicola Group rocks which are overlain by Late Cretaceous sediments and volcanics. Outliers of Tertiary and Recent basalts occupy some of the plateaus and valleys. The property is underlain by altered andesites, basalts, and monzonitic to dioritic intrusives. These units are structurally divided into three belts; Western, Central and Eastern, by two major steeply dipping, northerly trending fault systems. The Central Belt, which consists of intermediate feldspar and augite porphyry, pyroclastics, flows, lahars, and breccias is the most important since all the known mineral deposits on the property occur within it.

Both potassic and propylitic alteration are present with epidote, chlorite, and calcite being ubiquitous in Nicola rocks. intrusive rocks, which are comagmatic with the volcanic units, exhibit potassic alteration and contain pyrite, magnetite, and local biotite. Porphyry style copper mineralization is widespread in Nicola rocks and usually consists of chalcopyrite associated with pyrite; however, chalcocite, bornite, cuprite and native copper are also present as dissemination and in fractures and brecciated zones in both volcanic and intrusive rocks. Gold mineralization appears to be fracture controlled, but its mineralogy and possible association with pyrite and/or chalcopyrite are not clearly understood.

For assessment purposed a total of 46 rock chip and three soil samples were taken in the course of the property examination within a 2000 x 1000 metre area from three showings: Big Kidd, Big Sioux and the Bornite. All zones contain significant copper +/- gold values. The relationship between the showing is not understood at this time.

There are many similarities between some of the mineral occurrences in the Aspen Grove Copper Camp and other alkaline porphyry copper-gold deposits in the Quesnel Belt. The productive Copper Mountain and Afton deposits are geologically and mineralogically similar to the Big Sioux and Big Kidd deposits on the Shear property. However, historically low copper grades around Aspen Grove may have discouraged earlier explorationists (who were seeking copper/molybdenum rather than gold/copper deposits).

The Shear property has excellent potential to host a large, potential economic alkaline, porphyry copper-gold deposit similar to other deposits in the Quesnel Trough.

10.0 RECOMMENDATIONS

It is recommended that a comprehensive program involving mapping, sampling, and trenching be completed over all of the known showings.

This data should be incorporated with that of previous programs with the purpose of outlining potential drill sites.

11.0 COST STATEMENT - DAWN GROUP

1. Labour **Total: $2,652.00**

B. Malahoff (Geologist)
April 30, May 1-2 @ $212/day
B. Kinney (Labourer)
April 30, May 1-2 @ $166/day
D. Visagie (Senior Geologist)
May 1-2 @ $295/day
F. Hewett (Exploration Manager)
July 26 @ $400/day
D. Meyers (Geologist-Noranda)
July 26 @ $275/day
R. Kemp (Geologist-Noranda)
July 26 @ $300/day

2. Room & Board **Total: $ 825.00**

11 man-days @ $75/day

3. Transportation **Total: $1,588.13**

i) Truck rental: (includes maintenance & insurance)
6 days @ $75/day
ii) Bus fare: B. Kinney - Kelowna to Merritt return
$50.93
iii) Airfare: Noranda personnel
Prince George to Vancouver return 2 x $513.60
iv) Coquihalla toll $60.00

4. Communications **Total: $ 20.00**

B.C. Tel

5. Freighting **Total: $ 40.00**

Samples to Kamloops

6. Equipment rental/usage **Total: $ 100.00**

7. Assaying **Total: $ 818.75**

i) Eco-Tech $ 673.00

Rock samples
- 35 prep @ $3.75
- 35 geochem Au @ $6.75
- 35 30 element ICP @ $5.50
- 1 metallic @ $20.00
- 2 Au assay @ $8.50
- 1 Ag assay @ $8.50
- 3 Cu assay @ $6.50

Soil samples
- 3 prep @ $3.75
- 3 geochem @ $6.75
- 3 30 element ICP @ $5.50

ii) Acme - Noranda $ 145.75

Rock samples
- 11 prep @ $3.25
- 11 geochem Au @ $5.00
- 11 30 element ICP @ $5.00

8. Report **Total: $ 500.00**

Subtotal: $6,543.88

9. Management Fee 10% **Total: $ 654.39**

TOTAL: **$7,198.27**

12.0 STATEMENT OF QUALIFICATIONS

I, D.A. Visagie of 860 - 625 Howe Street, Vancouver, British Columbia, do hereby declare that:

1. I graduated from the University of British Columbia with a Bachelor of Science Degree, majoring in Geology, in 1976.

2. I have been steadily employed in the mining industry since then and have since January 1990 been employed by Northair Mines Ltd. as Senior Geologist.

3. The work undertaken on the Dawn Group was under my supervision.

Dated at Vancouver, British Columbia, this 15th day of October, 1991.

David A. Visagie

APPENDICES

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project ______________________ Sampler ______________________

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Sample Description: Alteration	Description
	91417	Rock						0	.10	.10	3639	45		Q	Andesite brx tr py, mal
	91418	Rock						Grab			2774	290		Q-mag	Andesite Tuff tr py, cp mal
	91419	Rock						Grab			1173	45		Q-ep-mag	Andesite Tuff, Tr-1% py, Tr cp mal, along fracture faces
	91420	Rock						Grab			1404	90		Q	Andesite Tuff, Tr cp py mal sta
	91421	Rock						Grab			3639	285		Q-ep-	Andesite Tuff, Tr py, cp,
	91422	Rock						Float			2.71%	20		Q-ep-mag	Andesite Tuff-Lahar cp, py mal
	91423	Rock						0	5.0	5.0	9792	5		lim, carb	Highly min andesite brx mal stained t/o
	91424	Rock						0	2.0	2.0	5835	515			" " "
	91425	"						0	5.0	5.0	2589	425			" " "
	91426	"						0	4.0	4.0	4255	325			" " "
	91427	"						Float			3.86%	.231		mag-lim	Andesite Tuff/Flow 5% cp 1% py, limonite, mal
	91428	"						Float			1.76	.085		mag-lim	Andesite Brx limonite alt t/o Tr Bo, mal stain
	91429	"						0	.10	.10	140	53+		Q-lim-mag	And Tuff - syenite frags gossanous
	91430	"						0	5.0	5.0	154	<5		lim-	Andesite Tuff weak mal stain
	91431	"						0	3.0	3.0	94	<5			Andesite Tuff minor qtz veinlets
	91432	"						Grab			324	<5		Q	Lahar - tr mal
	91433							Grab			2.29%	30		Q-carb-lim-mag	Andesite Tuff Azurite malachite fractured and sheared.

THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

Project *Shear* Sampler *D.A.V., B.M., B.K.*

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Sample Description: Alteration	
May 1	91401	Rock						Grab			7915	390		Q-Mag	Andesitic tuff 1-2% py. 1% Cp tr mal.
	91402	"						"			895	55		Q-Epid	Andesite flow tr py tr mal
	91403	"						"			653	25		Q-lim-mag	Andesite flow tr py minor carb veinlets
	91404	"						"			3649	145		Q-lim-carb	Andesite flow, 1% Py tr mal
	91405	"						"			1370	95		Q-lim-mag	Andesite flow, tr cp, 2% py
	91406	"						"			3811	255		Q-lim-carb epid-mag	Andesite flow, 1% mal 1% py
	91407	"						float			7451	595		~~Sil~~ Q-mag	Diorite 1-5% cp 1-2% py
	91408	"						float			8710	175		~~Sil~~ Q-mag-lim-carb	Andesite flow 1-2% cp py, mal,
	91409	"						Grab			3313	450		~~Sil~~ Q-lim-mag	Andesite, 1% py, tr cp mal
	91410	"						"			431	40		Q-epid-chl mag-carb	Andesite flow tr py, cp mal
	91411	"						float			1.18%	.046		Q-lim-epid chl carb	Narrow Gossanous Zone in Andesite
	91412	"						"			2539	170		"	" "
	91413	"						Grab			9481	800		lim-Q-carb	Porphyritic Andesite blebs cp 1-2% mal
	91414	"						"			3908	90		Q-lim	Andesite Tuff, Tr-1% py, Tr cp, mal stain
	91415	"						"			1972	70		lim-mag	Andesite porph flow tr cp, mal
	91416	"						0	4.0	4.0	1404	165		Q-mag	Andesite brx Tr py, cp, mal magnetite x-stals

THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project ______________________ Sampler ______________________

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Alteration	Sample Description
	91355							Grab			697	65			meg	Andesite Tuff - tr py
	91356							Grab			2627	350			meg-ep	" " tr mal
	91357							Grab			23	<5			ep	X-stal Tuff tr py
	91358							Grab			14	5			ep, meg	Andesite Tuff tr py
	91359							Grab			401	30			meg	Andesite xstal tuff
	91360							float ~~Grab~~			1.56%	30			ser	gossanous boulder with
								f			~~226~~	~~5~~				mal, azurite
	91361							float			226	5				gossanous float 1% py
	91362							C	10.0	10.0	446	50			chl, ep, meg	Andesite Tuff
	91363							C	12.0	12.0	2017	40			chl, ep,	" " tr -1% mal
	91364							C	2.0	2.0	755	20				gossanous shear tr mal
	91365							Grab			865	105				gossanous andesitic tuff
	91366										1050	35 ~~600~~				Andesite tuff, tr mal
	91367							C	5.0	5.0	7725	600				" " ep, mal
																along fracture faces
	91368							C	4.0	4.0	368	35				
	91369							float Grab			1.03%	350				Andesite Tuff, mal, ep
																and py
	91370							C	1.0	1.0	6422	555				Andesite tuff with ep, mal
	91371							grab			882	50				" " minor mal sta...
	91372							C	2.0	2.0	445	95				sheared andesitic tuff
	91373							grab			268	<5				
	91374							"			1004	75				

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 92 H/15E

PROPERTY Shear Property (Northair Mines)

DATE 7/26/91

ROCK SAMPLE REPORT

PROJECT 127 Ad.

AMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Cu	G☐ A☐ Au.	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	SAMPLED BY
114208	Highway o/c C+135 – C+130 m Nicola Volc. Qtz Calcite & epidote	–	Chip	5m.	533	81						D. Myers
114209	Highway o/c C+130 – C+125 m Nicola Volc Qtz Calcite & epidote.	–	Chip	5m.	554	32						D Myers
114210	Highway o/c C+125 – C+120 m As Above.	–	Chip	5m	460	69						D. M.
114211	Nicola Volc – Breccia. Hematized with dissem. Py. Located in Bulldozer trenching N. of Big Kidd Breccia Zone.	Py 1%	GRAB		1407	330						Rk.
114212	Big Kidd Breccia zone lower Road trench exposure – Hematized locally. Silicified, Local small dykelets of Monzonite & K-spar alt'd. sheared & Silicified. – 4m	Py 1.5% Cpy tr.	chip	4m	805	29						Rk

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 92 H /1SE

DATE 7/26/91

PROPERTY SHEAR Property (Northair Mines.)

PROJECT 127 A4

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Cu	G☐ A☐ Au	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	SAMPLED BY
114201	Road cut exposure along Coquihalla extension - N of Aspen Grove Nicola Volc in epidote C+34 to C+50	.5%	Chip	16m.	1526	16						D myers
114202	Small shear in Highway outcrop Nicola Volc + epidote + Mal - MALACHITE C+41.5m	<1% Py Cpy	Chip	10cm	36225	1450						D myers
114203	Highway o/c. start at west side at C+160 to C+155m Nicola Volc in Qtz Calcite stringers + fracs + epidote trending // to o/c face	<1% Cpy Py	Chip	5m	4657	104						RK
114204	Highway o/c C+155 - C+150m S.A. ABOVE	<1% Py Cpy	Chip	5m.	830	131						RK
114205	Highway o/c C+150 - C+145m Nicola Volc in [illegible] + [illegible] + fracture fill	<1% Py	Chip	5m	226	15						RK
114206	Highway o/c C+145 - C+140 Nicola Volc + epidote + calcite veinlets	<1% Py	Chip	5m	491	35						D. Myers
114207	Highway o/c C+140 - C+135 S A ABOVE	?	Chip	5m	404	37						D. Myers

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 92 H/15 E

PROPERTY SHEAR Property (Northern)

DATE 7/26/91

ROCK SAMPLE REPORT

PROJECT 127 A4

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Cu	G☐ A☐ Au	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	SAMPLED BY
114213	Big kidd Bx Zone same location as 212. Chip sample 4m - 8m locally magnetic - hematized. silicified, local k-spar alt'd. Pyritized dikelets of monzonite.	Py 1-2% Cpy Tr	chip	4m	866	52						RK
114214	Selected Grabs from Adit/SHAFT showing - Big kidd Bx zone, West of lower Rd trench zone. MALACHITE stain. Py 1%, Cpy <1%, Nicola Bx diss Py Cpy assoc. w monzonite dikelets	Py 1% Cpy <1%	GRAB		13566	320						RK
114215	Grabs from Bulldozer trench N of Big kidd Bx zone	Py 1-2%	GRAB		1753	290						RK
114216	Selected Grab from Big kidd Bx zone - Adit & shaft area. Bx Nicola Volc magnetic - malachite stain. Cpy diss in Volc. Bx. Cpy assoc. with later monzonite dikelets. Secondary Biotite development and K-SPAR.	Cpy <1% Py 1%	GRAB		8352	78						RK

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 92 H/15E

PROPERTY Shear Property (Northair.)

DATE 7/26/91

ROCK SAMPLE REPORT

PROJECT: 127 A4

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☐ A☐ Cu	G☐ A☐ Au	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	SAMPLED BY
114217	Big kidd Bx zone - Adit area	Py 1%	Grab.		5619	79						RK
	Nicola Volc w monzonite frag? dikelet?)	Cpy<1%										
	cpy/Py dissem. Assoc. w monzonite.											
	'q dissem. in Nicola Volc. Host											
	local K-spar. Cpy <1% Py 1%											
114578	~~Monzonite~~ Boulder, ~~Fract. Py cpy malachite in old pit. propylitic Alt.~~	~~TR~~	GRAB.		1861	103						DM
28	Monzonite Boulder, 5% Py, epidote/CO_3 Tr malachite	TR	GRAB.									
114576	Monzonite dissem & fract controlled py				2620	98						Dm
	cpy malachite from old pit	1%	GRAB									
114577	Andesite/MICRODIORITE, magnetic	—	GRAB.		77	6						Dm
	from old TRENCH.											
114579	Monzonite, propylitic alteration	1%	GRAB.		380	94						DM.
	Brown Feldspar. 1% dissem Py											
	white feld phenocrysts FLOAT											
	sample											

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

Appendix 2 Assay Results

AUGUST 7, 1991

CERTIFICATE OF ASSAY ETK 91-540

NORTHAIR MINES LTD.
860-625 HOWE STREET
VANCOUVER, B.C.
V6C 2T6

SAMPLE IDENTIFICATION: 3 ROCK samples received JULY 29, 1991
SAMPLES SUBMITTED BY: AB ABLETT

ET#	Description	Au (g/t)	Au (oz/t)	Cu (%)
1 -	HNMR-1	<.03	<.001	.45
2 -	HNMR-2	<.03	<.001	.49
3 -	HNMR-3	<.03	<.001	<.01

NOTE: < = less than

ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI, A.Sc.T.
B.C. Certified Assayer

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1630 PANDORA STREET
VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT: NORTHAIR MINES LTD.
ADDRESS: 860 - 625 Howe St.
: Vancouver, BC
: V6C 2T6

DATE: JULY 15 1991
REPORT#: 910088 AA
JOB#: 910088

PROJECT#: SHEAR PROPERTY
SAMPLES ARRIVED: JULY 12 1991
REPORT COMPLETED: JULY 15 1991
ANALYSED FOR: Cu Au

INVOICE#: 910088 NA
TOTAL SAMPLES: 1
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 1 ROCK

SAMPLES FROM: MR. FRED HEWETT
COPY SENT TO: NORTHAIR MINES LTD.

PREPARED FOR: MR. FRED HEWETT

ANALYSED BY: Raymond Chan

SIGNED: _____
Registered Provincial Assayer

GENERAL REMARK: RESULTS FAXED TO MR. FRED HEWETT @ 689-5041.

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1630 PANDORA STREET
VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 910088 AA JOB NUMBER: 910088 NORTHAIR MINES LTD. PAGE 1 OF 1

SAMPLE #	Cu %	Au oz/st
ROCK	0.14	< 0.005
DETECTION LIMIT	0.01	0.005

1 Troy oz/short ton = 34.28 ppm 1 ppm = 0.0001 % ppm = parts per million < = less than

signed: _____

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

NORTH AIR GROUP - ETK 91-269

860, 625 HOWE ST.
V6C 2T6

MAY 10, 1991

ATTENTION: DAVID VISAGIE

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: NONE GIVEN
7 SOIL SAMPLES RECEIVED MAY 7, 1991

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
269 - 1	S - 001	<5	<.2	2.46	25	12	180	<5	.71	<1	17	35	211	3.46	.10	30	.78	496	1	<.01	18	430	8	<5	<20	35	.12	<10	80	10	12	59
269 - 2	S - 002	<5	<.2	2.18	20	12	140	<5	.99	<1	20	42	145	3.85	.15	30	.88	811	1	<.01	23	590	6	<5	<20	30	.11	<10	87	<10	9	71
269 - 3	S - 003	<5	<.2	2.60	10	14	155	<5	.66	1	19	41	146	3.65	.15	30	.71	659	1	<.01	21	470	10	<5	<20	28	.13	<10	82	10	12	64
269 - 4	S - 004	<5	<.2	1.87	20	12	125	<5	1.39	<1	20	42	236	3.68	.14	30	1.06	761	1	<.01	22	860	6	<5	<20	37	.10	<10	95	<10	9	55
269 - 5	S - 005	20	.8	2.68	40	12	160	<5	1.37	<1	36	66	1175	7.40	.24	50	2.52	2096	2	<.01	26	2270	<2	<5	<20	16	.12	<10	200	<10	3	113
269 - 6	S - 006	<5	<.2	2.35	25	14	135	<5	1.03	<1	20	48	433	4.10	.12	30	1.05	637	1	<.01	24	1170	6	5	<20	44	.12	<10	103	10	11	59
269 - 7	S - 007	60	<.2	2.14	40	16	130	<5	.41	<1	24	38	671	7.52	.08	50	.92	174	10	<.01	17	1800	9	<5	<20	43	.16	<10	115	<10	1	111

NOTE: < = LESS THAN

ECO-TECH LABORATORIES LTD.
CLINTON S. AYERS
LABORATORY MANAGER

SC91/NORTHAIR1

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

MAY 10, 1991

CERTIFICATE OF ASSAY ETK 91-264

NORTH AIR GROUP
860, 625 HOWE ST.
V6C 2T6

ATTENTION: DAVID VISAGIE

SAMPLE IDENTIFICATION: 7 CORE samples received MAY 6, 1991

ET#	Description	CU (%)
264 - 5	91433	2.29

ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI, A.Sc.T.
B.C. Certified Assayer

FAX
SC91/NORTHAIR

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

NORTH AIR GROUP - ETK 91-264

860, 625 HOWE ST.
V6C 2T6

MAY 9, 1991

ATTENTION: DAVID VISAGIE

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: NONE GIVEN
7 ROCK SAMPLES RECEIVED MAY 6, 1991

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
264 - 1	91429	100	.8	1.24	100	14	20	<5	.72	1	23	61	534	5.74	.04	30	1.54	154	14	<.01	11	1770	152	10	<20	18	.17	<10	114	<10	<1	188
264 - 2	91430	<5	.2	1.09	30	<2	500	<5	6.91	<1	22	25	154	3.59	.18	20	1.60	1098	2	<.01	7	1470	2	10	<20	37	.01	<10	57	<10	2	62
264 - 3	91431	<5	<.2	1.09	25	<2	325	<5	6.11	<1	22	28	94	3.43	.21	20	1.94	989	1	<.01	11	1880	<2	10	<20	41	.01	<10	72	<10	2	54
264 - 4	91432	<5	.9	1.56	35	12	75	<5	3.07	<1	30	81	924	3.80	.02	20	2.49	1118	3	<.01	14	1280	<2	<5	<20	70	.18	<10	114	<10	5	105
264 - 5	91433	30	3.2	2.44	40	8	35	<5	3.78	<1	20	22	>10000	4.47	.02	20	1.78	884	8	<.01	3	570	8	5	<20	124	.24	30	218	10	9	102
264 - 6	91373	<5	<.2	.40	25	<2	460	<5	7.95	<1	21	70	268	3.40	.14	20	2.26	1154	5	<.01	11	1080	<2	10	<20	14	.00	<10	42	<10	<1	66
264 - 7	91374	75	1.9	1.15	60	34	15	10	1.24	<1	40	96	1004	5.40	.16	30	1.11	360	14	<.01	14	2630	10	5	<20	10	.00	<10	37	10	<1	39

NOTE: < = LESS THAN

ECO-TECH LABORATORIES LTD.
CLINTON S. AYERS
LABORATORY MANAGER

SC91/NORTHAIR1

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

MAY 10, 1991

CERTIFICATE OF ASSAY ETK 91-262A

NORTH AIR MINES LTD.
860, 625 HOWE ST.
V6C 2T6

ATTENTION: DAVID VISAGIE

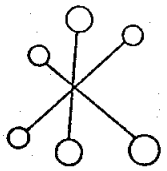
SAMPLE IDENTIFICATION: 46 ROCK samples received May 3, 1991
PROJECT: NONE GIVEN

ET#	Description	AU (g/t)	AU (oz/t)	AG (g/t)	AG (oz/t)	CU (%)
262 - 6	91360	-	-	82.5	2.41	1.56
262 - 15	91369	-	-	-	-	1.03
262 - 29	91411	1.57	.046	-	-	1.17
262 - 40	91422	-	-	-	-	2.71
262 - 45	91427	7.93 *	.231	-	-	3.86
262 - 46	91428	2.93	.085	-	-	1.76

NOTE: * Sample screened and Metallics Assayed

ECO-TECH LABORATORIES LTD.
Per FRANK J. PEZZOTTI, A.Sc.T.
B.C. Certified Assayer

FAX
SC91/NORTHAIR



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

METALLIC CALCULATION

SAMPLE NUMBER	-140 VALUE	+140 VALUE	CALCULATED VALUE
262-45	4.88	28.77445	7.931087

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

MAY 9, 1991

VALUES IN PPM UNLESS OTHERWISE REPORTED

NORTH AIR GROUP - ETK 91-262

860, 625 HOWE ST.
V6C 2T6

ATTENTION: DAVID VISAGIE

PROJECT: NONE GIVEN
46 ROCK SAMPLES RECEIVED MAY 3, 1991

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
262 - 1	91536	350	<.2	1.56	35	2	60	<5	2.61	<1	22	37	2627	5.33	.07	30	2.07	342	1	<.01	12	1550	4	5	<20	2	.33	<10	298	<10	4	49
262 - 2	91355	65	<.2	1.84	40	6	140	<5	1.51	<1	28	30	697	6.57	.30	30	2.16	314	1	.02	12	1840	4	5	<20	25	.30	<10	299	<10	3	47
262 - 3	91357	<5	<.2	2.08	25	12	30	<5	1.61	<1	34	15	23	4.02	.03	20	2.86	1622	2	.01	6	2040	2	5	<20	67	.23	<10	105	<10	7	142
262 - 4	91358	5	<.2	1.46	35	12	35	<5	1.22	<1	28	33	14	5.85	.13	30	1.65	372	1	<.01	12	1720	4	<5	<20	20	.22	<10	164	<10	<1	105
262 - 5	91359	30	<.2	2.11	20	<2	70	<5	4.94	<1	33	20	401	5.13	.29	30	2.02	944	2	<.01	16	1500	<2	10	<20	69	.02	<10	54	<10	<1	89
262 - 6	91360	45	>30.0	.35	725	<2	80	<5	9.22	3	22	12	>10000	4.31	<.01	20	2.05	1667	20	<.01	7	910	4	10	<20	<1	<.01	<10	99	10	<1	279
262 - 7	91361	5	.5	1.04	40	<2	100	<5	9.00	1	31	9	226	4.78	.22	30	2.12	1959	2	<.01	11	1490	2	10	<20	66	.01	<10	91	<10	<1	134
262 - 8	91362	50	<.2	2.10	40	2	30	<5	2.32	<1	31	85	446	6.82	.11	30	2.89	590	1	<.01	31	1370	4	5	<20	7	.30	10	256	<10	<1	88
262 - 9	91363	40	1.0	1.80	25	<2	90	<5	4.94	<1	27	58	2017	5.24	.33	30	2.09	1220	3	<.01	15	1340	<2	5	<20	38	.10	<10	146	<10	<1	82
262 -10	91364	20	.6	.48	30	<2	120	<5	10.46	<1	23	10	755	4.77	.23	30	2.52	1853	2	<.01	5	920	<2	10	<20	31	.01	<10	46	<10	<1	107
262 -11	91365	105	.2	1.54	40	<2	35	<5	3.84	<1	25	21	863	7.01	.07	40	2.07	912	3	<.01	11	1640	<2	10	<20	54	.06	<10	147	<10	<1	89
262 -12	91366	35	.2	1.18	20	8	25	<5	1.20	<1	15	17	1030	2.82	.08	20	.95	450	1	<.01	4	1770	4	5	<20	74	.15	<10	88	<10	5	44
262 -13	91367	600	1.4	1.49	30	10	40	<5	1.27	<1	22	79	7725	5.18	.10	30	1.89	505	2	<.01	22	1210	2	5	<20	18	.26	<10	180	10	2	77
262 -14	91368	35	<.2	1.31	25	6	30	<5	1.90	<1	16	21	338	4.22	.10	20	1.33	755	2	.01	8	1690	2	<5	<20	29	.15	<10	135	<10	4	98
262 -15	91369	350	.2	1.94	20	6	120	<5	1.63	<1	24	125	>10000	3.99	.43	20	2.34	368	5	<.01	43	1940	<2	5	<20	50	.25	<10	131	<10	6	36
262 -16	91370	555	<.2	2.23	15	2	100	<5	2.66	<1	25	139	6422	4.08	.47	30	2.75	509	8	<.01	46	2090	<2	<5	<20	30	.25	<10	143	<10	8	42
262 -17	91371	80	<.2	2.42	20	2	50	<5	3.21	<1	25	19	882	5.73	.21	40	2.71	975	2	<.01	12	1760	<2	<5	<20	6	.03	<10	175	<10	<1	61
262 -18	91372	95	<.2	2.05	30	4	170	<5	2.62	<1	25	13	443	6.69	.18	40	2.45	614	2	<.01	9	1590	6	5	<20	0	.25	<10	205	<10	2	114
262 -19	91401	390	.2	1.08	20	2	90	<5	2.36	<1	18	18	7915	3.31	.12	20	1.08	374	2	<.01	5	1800	2	<5	<20	18	.25	<10	191	10	9	75
262 -20	91402	55	<.2	1.09	25	10	145	<5	1.61	<1	16	21	895	3.17	.12	20	.61	205	3	.02	2	1890	6	<5	<20	64	.22	<10	143	<10	8	42
262 -21	91403	25	<.2	1.77	25	8	40	<5	1.31	<1	30	8	653	4.90	.08	20	1.69	305	2	<.01	5	2210	6	<5	<20	65	.25	<10	116	<10	4	50
262 -22	91404	145	<.2	2.14	30	8	40	<5	1.41	<1	39	7	3649	5.29	.06	30	2.27	393	1	<.01	7	2170	3	5	<20	73	.29	<10	133	10	5	76
262 -23	91405	95	<.2	2.12	25	<2	165	<5	5.61	<1	32	47	1370	4.55	.24	30	2.83	685	2	<.01	19	1490	<2	5	<20	9	.33	<10	209	<10	5	148
262 -24	91406	255	.2	1.70	25	<2	165	<5	5.01	<1	22	8	3811	4.40	.12	20	1.86	836	2	<.01	5	2010	<2	5	<20	<1	.21	<10	153	<10	6	55
262 -25	91407	595	.8	1.48	20	14	65	<5	1.30	<1	23	28	7451	4.37	.07	20	1.63	436	3	<.01	6	1590	<2	5	<20	30	.15	<10	102	10	2	57
262 -26	91408	175	2.1	1.36	20	6	25	<5	1.96	<1	26	26	8710	3.18	.13	20	1.46	514	3	<.01	4	1630	2	5	<20	12	.22	<10	113	10	8	48

ECO-TECH LABORATORIES LTD. NORTH AIR GROUP - ETK 91-262

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
262 -27	91409	450	.6	1.85	35	6	60	<5	2.25	<1	36	24	3313	5.90	.11	30	2.07	732	3	<.01	11	1680	<2	<5	<20	38	.17	<10	144	10	<1	70
262 -28	91410	40	<.2	2.31	20	20	30	<5	2.09	<1	30	140	431	4.66	.04	20	2.52	698	1	<.01	39	1330	2	5	<20	136	.22	<10	108	<10	1	82
262 -29	91411	>1000	2.6	1.73	25	250	25	<5	4.47	<1	19	59	>10000	3.13	.01	20	1.06	353	6	<.01	16	1710	<2	5	<20	354	.19	<10	83	10	4	42
262 -30	91412	170	.8	1.72	25	26	40	<5	4.35	<1	24	65	2539	4.13	.05	20	1.94	752	3	<.01	17	1810	<2	<5	<20	97	.13	<10	125	<10	2	82
262 -31	91413	800	2.2	1.07	20	106	80	<5	3.09	<1	16	35	9481	3.03	.06	20	1.11	200	4	<.01	11	1580	<2	<5	<20	52	.13	<10	66	10	4	47
262 -32	91414	90	5.8	1.39	40	<2	560	<5	7.35	7	29	20	3908	4.35	.27	20	1.29	1521	7	<.01	11	1070	<2	30	<20	19	.01	<10	56	<10	<1	148
262 -33	91415	70	2.1	1.14	25	18	95	<5	1.29	1	18	25	1972	3.74	.28	20	1.04	564	4	.01	4	1780	2	5	<20	51	.19	<10	115	10	8	61
262 -34	91416	165	<.2	1.72	35	16	30	<5	1.29	<1	26	87	1404	5.77	.08	20	2.17	518	1	.01	28	1480	6	5	<20	32	.29	<10	207	10	1	94
262 -35	91417	45	1.0	.71	25	<2	70	<5	7.05	<1	17	20	674	3.65	.32	20	1.70	1125	5	<.01	9	1200	<2	15	<20	29	.02	<10	77	<10	<1	78
262 -36	91418	290	.6	1.57	35	14	25	<5	1.57	<1	24	79	2774	5.43	.07	20	2.08	464	1	<.01	34	1530	2	<5	<20	25	.25	<10	178	<10	<1	84
262 -37	91419	45	<.2	2.07	35	2	15	<5	4.53	<1	35	35	1173	5.90	.02	30	2.47	848	1	<.01	18	1710	2	5	<20	120	.14	<10	142	<10	<1	94
262 -38	91420	90	<.2	2.44	20	10	370	<5	1.98	<1	33	15	1404	4.89	1.54	30	2.31	693	1	<.01	8	1690	2	5	<20	87	.31	<10	205	<10	7	95
262 -39	91421	285	.2	2.54	20	10	50	<5	2.42	<1	30	47	3639	6.19	.19	30	2.93	615	1	<.01	24	1890	<2	<5	<20	22	.24	10	187	<10	5	63
262 -40	91422	20	4.8	2.87	5	14	85	<5	1.05	<1	44	364	>10000	4.22	.05	20	4.53	879	2	<.01	301	1120	<2	<5	<20	9	.17	<10	100	10	3	69
262 -41	91423	5	1.6	1.23	15	16	150	<5	1.17	<1	18	25	9792	3.45	.03	20	1.33	364	2	<.01	8	1290	<2	<5	<20	31	.26	<10	109	10	9	57
262 -42	91424	515	.8	2.53	30	12	100	<5	1.05	<1	31	18	5835	7.43	.39	30	3.01	471	1	<.01	37	2020	<2	5	<20	21	.33	10	267	10	5	69
262 -43	91425	425	.2	2.08	20	14	65	<5	1.36	1	24	19	2589	4.87	.24	20	2.27	533	1	<.01	18	1810	2	<5	<20	38	.26	<10	164	<10	7	54
262 -44	91426	325	1.0	2.45	20	10	75	<5	1.81	8	24	58	4255	5.82	.36	30	2.88	593	2	<.01	29	1970	14	<5	<20	2	.31	<10	213	<10	7	62
262 -45	91427	>1000	3.4	2.59	20	10	75	<5	2.86	5	38	163	>10000	7.82	.44	30	3.11	553	4	<.01	52	800	6	<5	<20	<1	.31	10	204	10	4	87
262 -46	91428	>1000	5.2	2.41	40	10	75	<5	1.52	<1	33	43	>10000	8.89	.15	40	3.05	434	1	<.01	45	1510	2	<5	<20	10	.33	20	316	10	1	62

NOTE: < = LESS THAN
> = GREATER THAN

ECO-TECH LABORATORIES LTD.
CLINTON S. AYERS
LABORATORY MANAGER

SC91/NORTHAIR1

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1630 PANDORA STREET
VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

Stear.

ASSAY ANALYTICAL REPORT

CLIENT: NORTHAIR MINES LTD.
ADDRESS: 860 - 625 Howe St.
: Vancouver, BC
: V6C 2T6

DATE: MAY 08 1991
REPORT#: 910060 AA
JOB#: 910060

PROJECT#: NONE GIVEN
SAMPLES ARRIVED: MAY 06 1991
REPORT COMPLETED: MAY 08 1991
ANALYSED FOR: Cu

INVOICE#: 910060 NA
TOTAL SAMPLES: 1
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 1 ROCK

SAMPLES FROM: MR. DAVE VISAGIE
COPY SENT TO: NORTHAIR MINES LTD.

PREPARED FOR: MR. DAVE VISAGIE

ANALYSED BY: Raymond Chan

SIGNED: _____
Registered Provincial Assayer

GENERAL REMARK: RESULTS FAXED TO MR. DAVE VISAGIE @ 689-5041.

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1630 PANDORA STREET
VANCOUVER, B.C.
V5L 1L6
TEL (604) 251-5656
FAX (604) 254-5717

BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 910060 AA JOB NUMBER: 910060 NORTHAIR MINES LTD. PAGE 1 OF 1

SAMPLE #	Cu %
76051	1.10

DETECTION LIMIT 0.01

1 Troy oz/short ton = 34.28 ppm 1 ppm = 0.0001 % ppm = parts per million < = less than

signed: _____

GEOCHEMICAL ANALYSIS CERTIFICATE Shear Prop. (RK)

Noranda Exploration Co. Ltd. PROJECT 9107-105 127 File # 91-2900

1050 Davie St., Vancouver BC V6E 1M4

Highway Zone

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
114201	3	1526	4	46	.4	17	19	456	5.06	14	5	ND	1	122	.2	2	6	117	1.90	.168	4	40	1.57	48	.29	5	1.81	.04	.10	1	16
114202	93	36225	4	138	4.7	45	83	905	8.41	31	5	2	1	120	2.7	2	12	115	6.71	.180	11	10	1.36	95	.26	3	1.30	.03	.16	1	1450
114203	11	4657	2	59	1.1	29	85	724	7.18	22	5	ND	1	92	.2	2	10	120	3.77	.125	3	35	2.07	25	.29	5	1.96	.03	.12	1	104
114204	5	830	8	51	.9	27	112	742	8.62	17	5	ND	1	66	.2	3	2	143	3.09	.108	2	36	2.20	22	.29	9	2.00	.04	.32	1	131
114205	2	226	3	49	2.7	24	31	641	5.48	100	5	ND	1	90	.2	3	22	114	2.31	.132	2	35	2.21	23	.31	11	2.16	.05	.17	1	15
114206	2	491	5	46	.4	23	29	558	5.87	14	5	ND	1	102	.2	11	2	131	2.26	.139	3	33	2.25	51	.33	11	2.20	.05	.19	1	35
114207	2	404	2	41	.4	40	29	490	6.12	13	5	ND	1	69	.2	4	3	131	1.68	.147	3	99	2.12	28	.32	41	1.84	.04	.10	1	37
114208	2	533	2	33	.5	28	22	446	5.04	14	5	ND	1	99	.2	3	4	113	2.25	.140	4	68	1.65	29	.28	534	1.56	.05	.08	1	81
114209	3	554	2	40	.4	6	18	466	4.71	10	5	ND	1	54	.2	2	2	113	2.57	.134	6	11	1.09	22	.23	13	1.30	.04	.15	1	32
114210	4	460	3	39	.5	12	12	473	4.39	12	5	ND	1	123	.2	2	3	129	2.24	.155	5	27	1.27	19	.23	12	1.40	.04	.08	1	68
114211	9	1407	6	255	.6	15	35	977	7.64	19	5	ND	1	45	.7	2	7	108	1.80	.161	4	25	1.58	27	.22	3	1.75	.04	.14	1	330
114212	12	805	2	49	.4	22	26	527	7.84	8	5	ND	1	33	.2	2	2	173	1.52	.148	4	34	2.02	33	.35	5	2.06	.06	.17	1	29
114213	5	866	3	48	.5	27	30	520	8.72	11	5	ND	1	40	.2	3	4	174	1.66	.159	4	35	1.86	33	.34	6	2.14	.07	.15	1	52
114214	1	13566	7	119	13.1	22	75	1286	16.74	24	5	ND	1	16	1.2	2	18	185	.56	.152	3	22	2.20	13	.18	2	2.52	.03	.06	1	320
114215	23	1753	3	46	.8	13	16	434	7.58	14	5	ND	1	47	.2	2	7	79	1.20	.159	4	20	1.04	21	.21	3	1.24	.06	.15	1	290
114216	1	8352	2	96	2.9	16	43	1327	12.28	8	5	ND	1	34	.6	2	7	150	2.89	.144	4	11	1.83	9	.12	2	2.07	.04	.10	1	78
114217	1	5619	2	85	3.6	14	26	1202	12.12	9	5	ND	1	38	.6	2	12	144	2.96	.135	4	16	1.71	14	.11	2	1.95	.04	.12	1	79
114576	4	2620	2	57	1.1	11	11	419	4.79	8	5	ND	1	42	.2	2	10	137	1.53	.173	5	11	.86	36	.23	8	1.50	.06	.12	1	98
114577	1	77	2	33	.2	10	16	413	5.65	11	5	ND	1	61	.2	2	2	161	2.30	.177	5	8	1.19	104	.29	9	2.23	.09	.20	2	6
114578	6	1861	3	38	.6	11	20	626	7.67	7	5	ND	1	27	.2	2	9	69	1.91	.149	4	22	1.54	14	.18	3	1.33	.05	.05	1	103
114579	5	380	2	28	.3	7	30	347	4.42	8	5	ND	1	50	.2	2	2	53	1.77	.144	4	10	.86	36	.18	3	1.63	.04	.10	1	94
STANDARD C/AU-R	17	57	38	132	6.9	70	31	1028	3.94	39	17	6	37	49	17.2	15	18	56	.48	.089	35	58	.88	177	.09	34	1.87	.06	.15	11	470

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.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 26 1991 DATE REPORT MAILED: Aug 1/91. SIGNED BY ..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SHEAR 5

SHEAR 8

91433

91359

91357

91361

91360

91362

91368

91367

S-6

91358

91374

91431

91430

91375

91363

91414

91417/8

91416

91364

91355/56

91401

S-3

S-1

91403

S-2

91402

BALD HILL TRENCHES

91415

S-5

91366

BIG SIOUX TRENCHES

91404

91405

91410

S-4

91407-9

91420

91411

91412

91413

114201

114211

114202

HALO 200

SHEAR 12

SHEAR 1

HALO 100

DAWN 100

91428

91427

91423

91425

91424

91372

91371

91426

91370

91369

114576

HMNR-1

114579

114578

91429

HMNR-2

BIG KID TRENCHES

114214/15

114212/13

HMNR-3

114211/16/17

114519

N

LEGEND

- ▲ OUTCROP
- △ FLOAT
- x SOIL SAMPLE

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,824

0 100 500

METRES

NORTHAIR MINES LTD.

SHEAR PROPERTY

SAMPLE LOCATIONS

DRAWN BY:	NTS 92H/15E,92I/2E
DATE: JUNE/1991	NICOLA MINING DIV.
SCALE: 1:5000	FIGURE NO: 5

SHEAR 5

SHEAR 8

2.29%

SHEAR 12

HALO 200

SHEAR 1

HALO 100

DAWN 100

BALD HILL TRENCHES

BIG SIOUX TRENCHES

BIG KID TRENCHES

401
23
226
1.56%
446
368
1030
1404
14
3639
2774
2017
3908
755
1972
1175
1030
697/2627
7915
x211
653
146
895
3649
1370
431
1404
1.18%
433
7451
2539
9481
1526
1407
36225
94
154
1004
268
1.76%
3.86%
9732
2589
5835
882
445
4255
6422
1.03%
2670
.45%
380
1861
140
.49%
13556/1783
805/866
.01%
1407/8352/5619
380

LEGEND

- ▲ OUTCROP
- △ FLOAT
- x SOIL SAMPLE

Values PPM Unless Noted

0 100 500

METRES

GEOLOGICAL BRANCH
ASSESSMENT REPORT

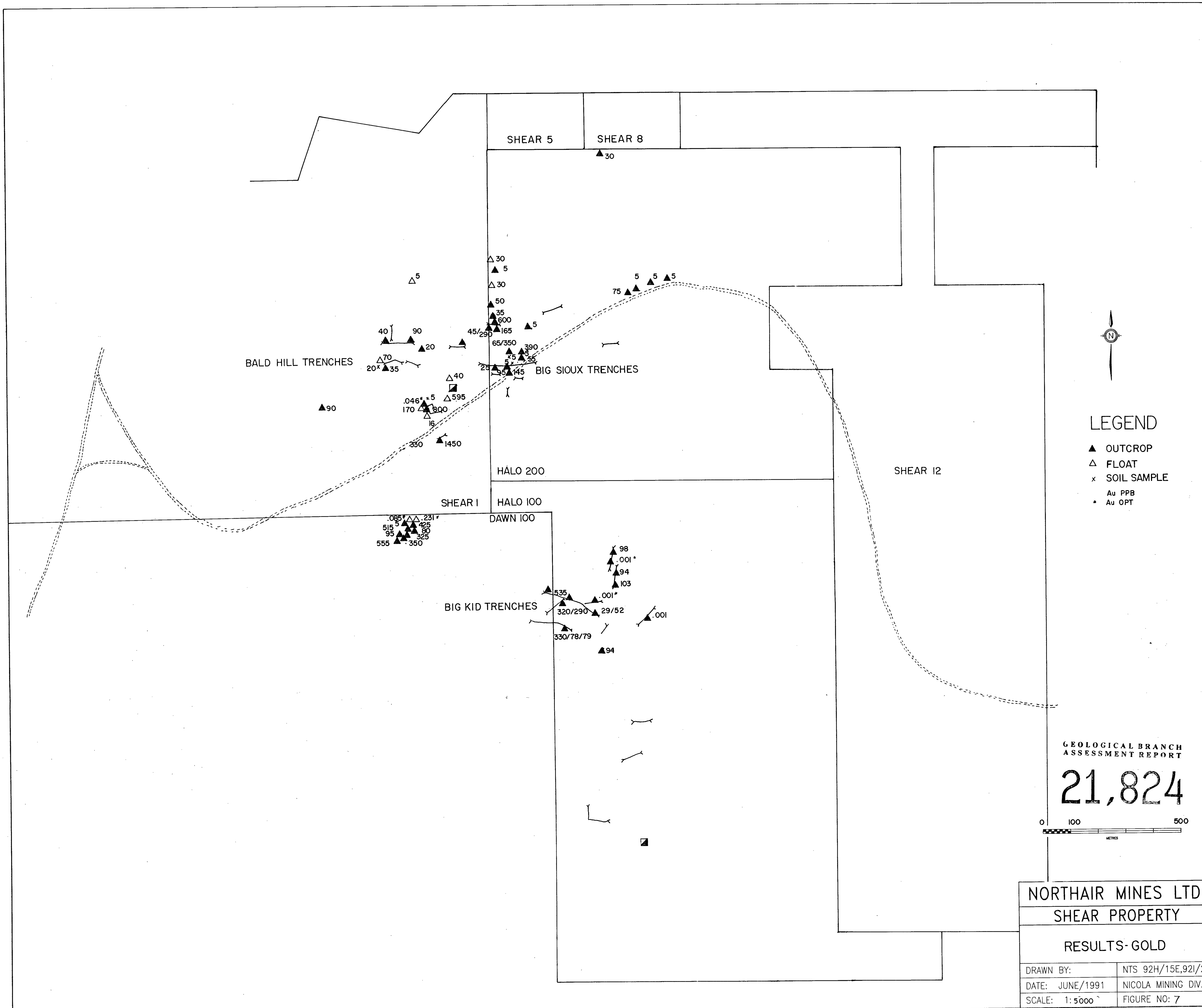
21,824

NORTHAIR MINES LTD.

SHEAR PROPERTY

RESULTS-COPPER

DRAWN BY:	NTS 92H/15E,92I/2E
DATE: JUNE/1991	NICOLA MINING DIV.
SCALE: 1:5000	FIGURE NO: 6


SHEAR 5
SHEAR 8
BALD HILL TRENCHES
BIG SIOUX TRENCHES
HALO 200
SHEAR 1
HALO 100
DAWN 100
BIG KID TRENCHES
SHEAR 12
LEGEND
OUTCROP
FLOAT
SOIL SAMPLE
Au PPB
Au OPT
GEOLOGICAL BRANCH
ASSESSMENT REPORT
21,824
0 100 500
METRES
NORTHAIR MINES LTD.
SHEAR PROPERTY
RESULTS- GOLD
DRAWN BY:
NTS 92H/15E,92I/2E
DATE: JUNE/1991
NICOLA MINING DIV.
SCALE: 1: 5000
FIGURE NO: 7