

ARIS SUMMARY SHEET

District Geologist, Kamloops

Off Confidential: 94.11.09

ASSESSMENT REPORT 23258

MINING DIVISION: Nicola

PROPERTY: Jesse Creek

LOCATION: LAT 50 09 00 LONG 120 47 00  
UTM 10 5557442 658365  
NTS 092I02W

CAMP: 012 Nicola Belt

CLAIM(S): QZ 2-3, Pete 1-2, Jean

OPERATOR(S): Conlon Copper

AUTHOR(S): Wells, R.C.

REPORT YEAR: 1994, 44 Pages

COMMODITIES

SEARCHED FOR: Copper, Iron, Lead, Zinc, Silver

KEYWORDS: Triassic, Nicola Group, Limestones, Andesites, Dacites, Lapilli tuffs  
WORK

DONE: Geological, Geochemical

GEOL 200.0 ha

Map(s) - 1; Scale(s) - 1:2500

ROCK 36 sample(s); ME

Map(s) - 1; Scale(s) - 1:2500

MINFILE: 092ISE168, 092ISE045

FEB 14 1994  
LOG NO: RD.  
ACTION:  
FILE NO:

**GEOLOGICAL  
ASSESSMENT REPORT**  
for the  
**JESSE CREEK PROPERTY**  
**CINDERELLA-CHASE GRID**  
**NICOLA MINING DIVISION**  
**BRITISH COLUMBIA**  
**NTS 92 I/2**  
for  
**CONLON COPPER CORPORATION**  
**SUITE 1003-850 BURRARD STREET**  
**VANCOUVER, B.C.**  
**V6Z 1X9**

**Property Owners:** P. Conlon, L. Mclelland  
P.O. Box 665, Merritt, B.C.

**Report Author:** R.C. Wells, P.Geo., F.G.A.C.  
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Kamloops Geological Services Ltd.  
910 Heatherton Court  
Kamloops, B.C.  
V1S 1P9

FILMED

January 31, 1994  
**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**Claims**  
Pete, Pete#2, Pete#3, Pete#4,  
Pete#5, Pete#6, Patlo#2, QZ#2,  
QZ#4.

23,258

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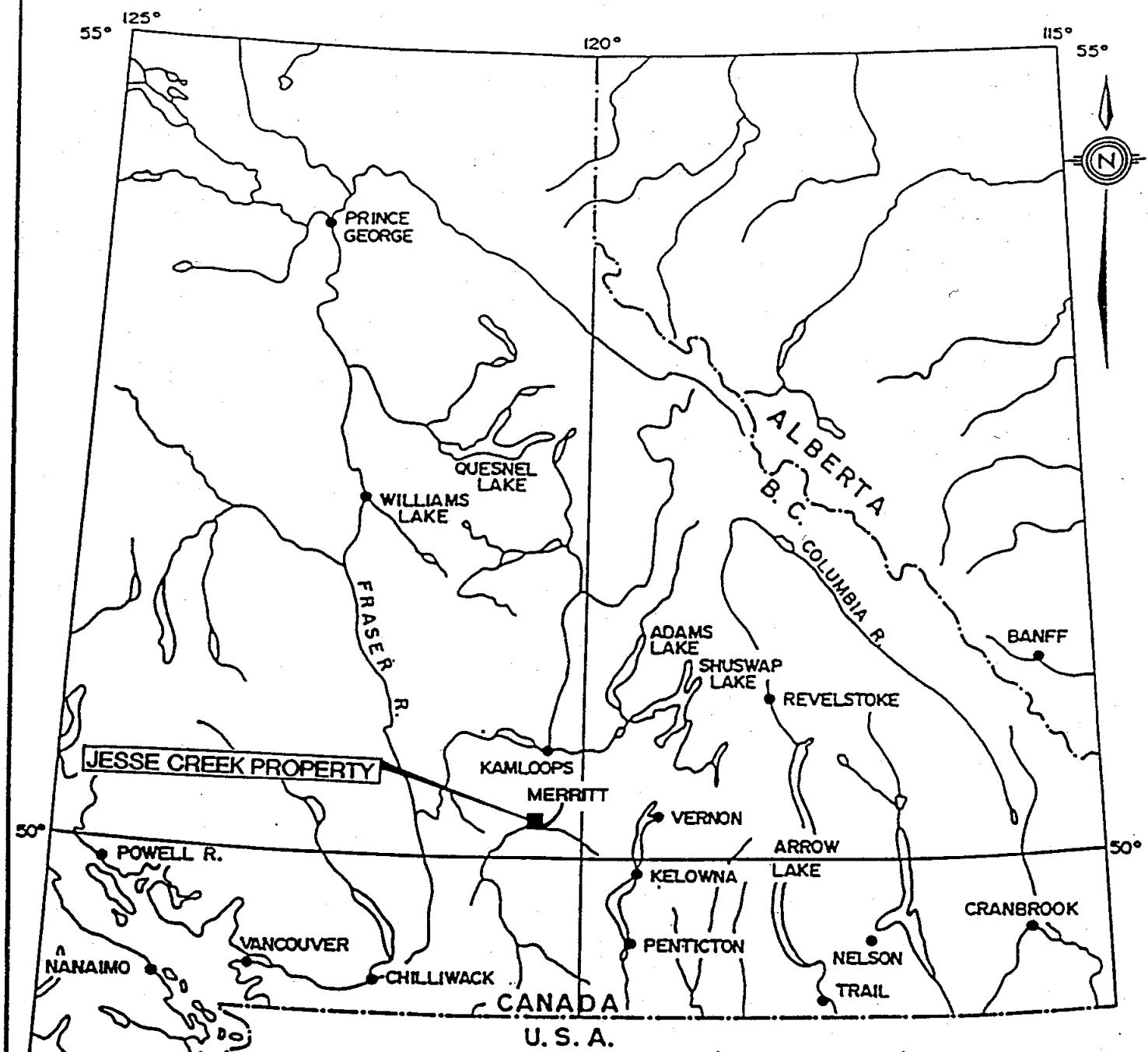
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## SUMMARY

The Jesse Creek Property centred on Merritt, British Columbia consists of 24 contiguous mineral claims totalling 188 units and covering approximately 4700 hectares. Much of the property is underlain by Triassic, Nicola Group volcanics (western facies) with calcareous units and local diorite to monzonite intrusives (Late Triassic or later). Good potential exists for Craigmont type Cu-Fe skarn deposits in this environment.

In 1993, Conlon Copper Corporation financed a geological mapping and sampling program on the Cinderella-Chase area. A thick northerly trending sequence of mafic to felsic (dacite) flows, volcanoclastics and immature sediments, includes one or more limestone units. This sequence is deformed with near vertical dips and has been intruded by several dikes, sills and small plugs of diorite to quartz monzonite composition. Calc-silicate alteration is widespread in the more calcareous units. Poorly exposed copper mineralization is associated with epidote-carbonate-magnetite-specular hematite skarn zones (minor quartz) proximal to the main limestone unit(s), and locally in more fractured and altered micro-monzonite intrusives to the west. At the Cinderella occurrence, copper mineralization is also associated with significant sphalerite and galena in northwest trending fracture-vein zones cutting the calcareous tuff limestone sequence.

A combination of structure, reactive rocks (limy sequence) and intrusives appear to be very important factors in the localization of vein and skarn base metal mineralization. The Cinderella-Chase area has limited outcrop along large sections of the favourable limy sequence, especially where major easterly trending structures have been interpreted. Skarn and calc-silicate hosted copper mineralization (chalcopyrite) appears to be strongest in these areas. Most of the previous holes drilled in this area were east or west across stratigraphy. North or south directed holes in many cases would have been more informative. Diamond drilling is recommended in these areas and on the Cinderella Cu, Pb, Zn vein zone.



SCALE  80km

<b>CONLON COPPER CORPORATION</b>		
JESSE CREEK PROPERTY		
PROPERTY LOCATION		
KAMLOOPS GEOLOGICAL SERVICES LTD.		
DATE August 1993	NTS 921/2	FIGURE 1

## 1.0 INTRODUCTION

This report presents the results from a 1993 geological mapping and sampling program on the Jesse Creek Property, Cinderella-Chase grid in the Nicola Mining Division. The object of this program was to examine geological environments and the controls of copper (lead, zinc) mineralization in this area. The prime exploration targets were copper-iron skarn zones similar to Craigmont, and possible porphyry style mineralization (Cu, Au) associated with dioritic to monzonitic intrusives.

The 1993 geological program on the Cinderella-Chase grid took place during July and August, and was supervised by R.C. Wells P.Geo., FGAC, consulting geologist for Kamloops Geological Services Ltd. Conlon Copper Corporation, with offices located at Suite 1003-850 Burrard St., Vancouver, B.C. financed the program. The total cost of the program was \$16,570, of which \$16,400 is being applied to the Jesse Creek East claim grouping for assessment work credit.

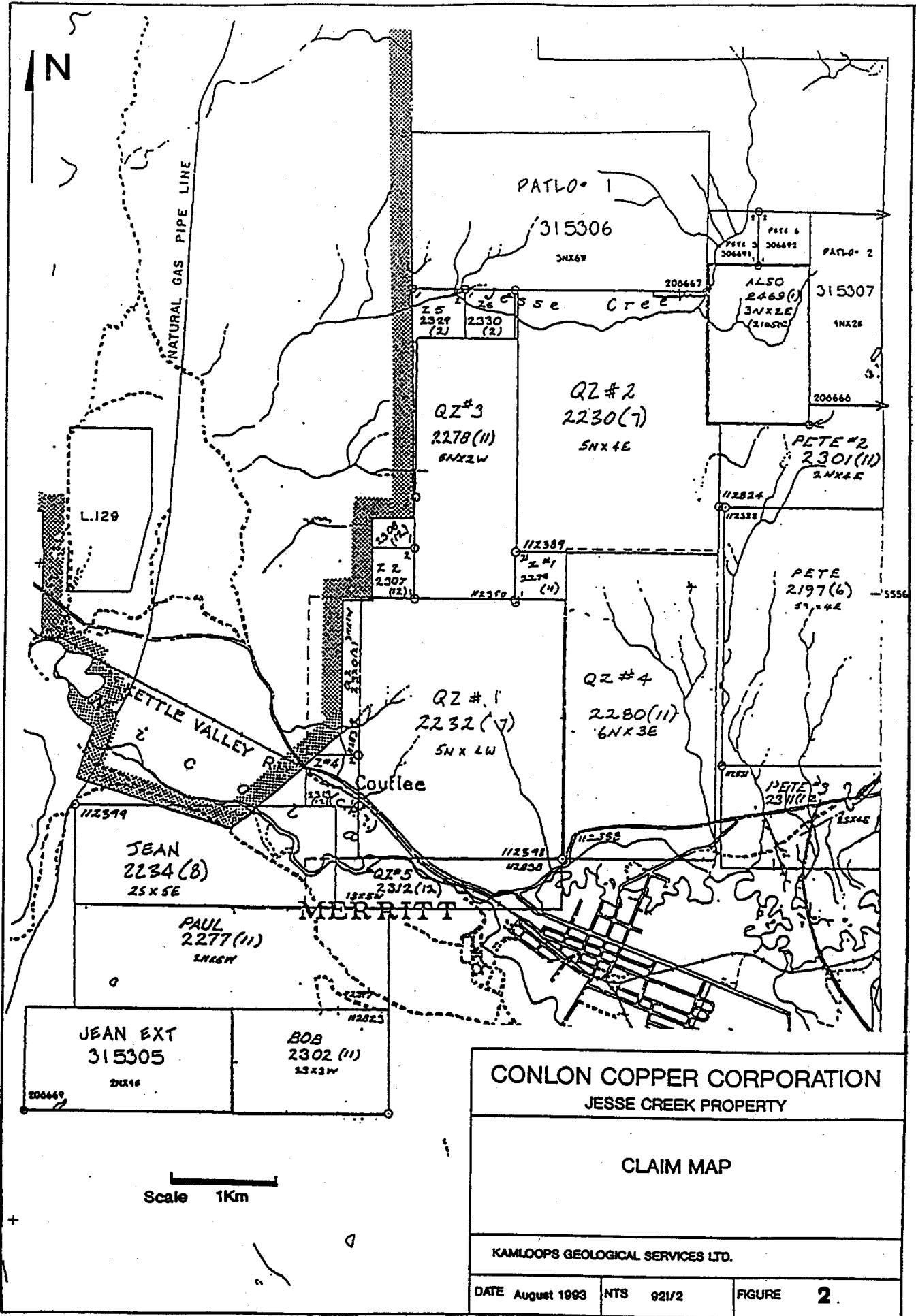
### 1.1 LOCATION AND ACCESS

The Jesse Creek Property is located north and west of the town of Merritt, British Columbia (Figure 1) and is covered by the NTS map sheet 92I/2. Most of the property can be easily accessed from a network of old logging and mining roads, many of which can be driven using a 4x4 vehicle. The Nicola-Mameet Indian Reserve lies immediately to the west of the property.

### 1.2 PROPERTY

This large property, located in the Nicola Mining Division of British Columbia, consists of twenty four mineral claims with a total of 188 units (4700 hectares). Details concerning the individual claims are available in Table 1 and Figure 2. Patrick Conlon and Lorne McLelland, both of Merritt B.C. are the recorded owners of the claims. Conlon Copper Corporation financed all of the exploration conducted on the property in 1993.

In November 1993, the following claims were grouped as Jesse Ck. East for assessment purposes: QZ#2, QZ#4, PETE, PETE#2, PETE#3, PETE#4, PETE#5, PETE#6, PATLO#2.



N

NATURAL GAS PIPE LINE

PATLO-1  
315306  
3NX6V

PATLO-2  
315307  
1NX2E

QZ #3  
2278(11)  
6NX2W

QZ #2  
2230(7)  
5NX4E

PETE #2  
2301(11)  
2NX4E

PETE  
2197(6)  
5NX4E

QZ #4  
2280(11)  
6NX3E

QZ #1  
2232(7)  
5NX4W

JEAN  
2234(B)  
25X5E

PAUL  
2277(11)  
1NX6W

JEAN EXT  
315305  
2NX1E

BOB  
2302(11)  
13X3W

Scale 1Km

**CONLON COPPER CORPORATION**  
JESSE CREEK PROPERTY

**CLAIM MAP**

KAMLOOPS GEOLOGICAL SERVICES LTD.

DATE August 1993    NTS 921/2    FIGURE 2

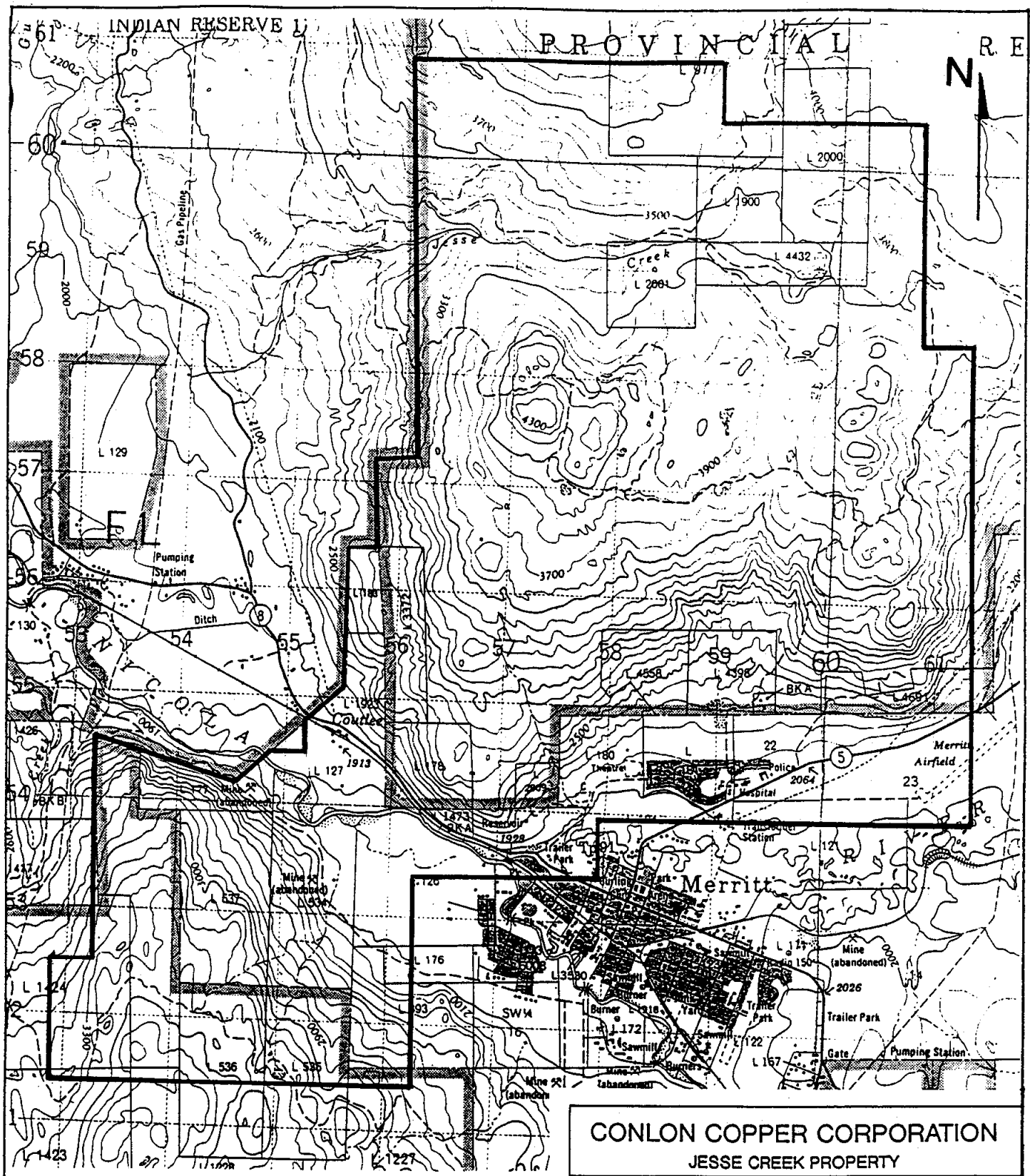


TABLE 1: JESSE CREEK PROPERTY - CLAIM INFORMATION

NAME	RECORD NO.	UNITS	MINING DIV.	ANNIVERSARY DATE
PETE	237348	20	Nicola	June 3 1994
QZ #1	237381	20	"	July 6 1994
QZ #2	237379	20	"	July 12 1994
JEAN	237383	10	"	July 25 1994
PAUL	237425	12	"	Nov 1 1994
QZ #3	237426	10	"	Nov 10 1993
Z #1	237427	1	"	Nov 10 1993
QZ #4	237428	18	"	Nov 11 1993
BOB	237450	6	"	Nov 23 1994
PETE #2	237449	8	"	Nov 24 1993
Z #2	237455	1	"	Dec 2 1993
Z #3	237456	1	"	Dec 2 1993
PETE #5	306691	1	"	Dec 12 1993
PETE #6	306692	1	"	Dec 12 1993
Z #4	237461	1	"	Dec 28 1993
QZ #5	237460	5	"	Dec 28 1993
PETE #3	237459	8	"	Dec 29 1993
JEAN EXT	315305	8	"	Dec 29 1994
PATLO 1	315306	18	"	Dec 30 1993
PATLO 2	315307	8	"	Dec 31 1993
Q #2	237468	3	"	Feb 7 1994
PETE #4	237617	6	"	Feb 7 1994
Z #5	237477	1	"	Feb 22 1994
Z #6	237478	1	"	Feb 22 1994

TOTAL

188 UNITS



Scale 1Km

**CONLON COPPER CORPORATION**  
**JESSE CREEK PROPERTY**

**PROPERTY OUTLINE WITH TOPOGRAPHY**

KAMLOOPS GEOLOGICAL SERVICES LTD.

DATE August 1993	NTS 921/2	FIGURE <b>3</b>
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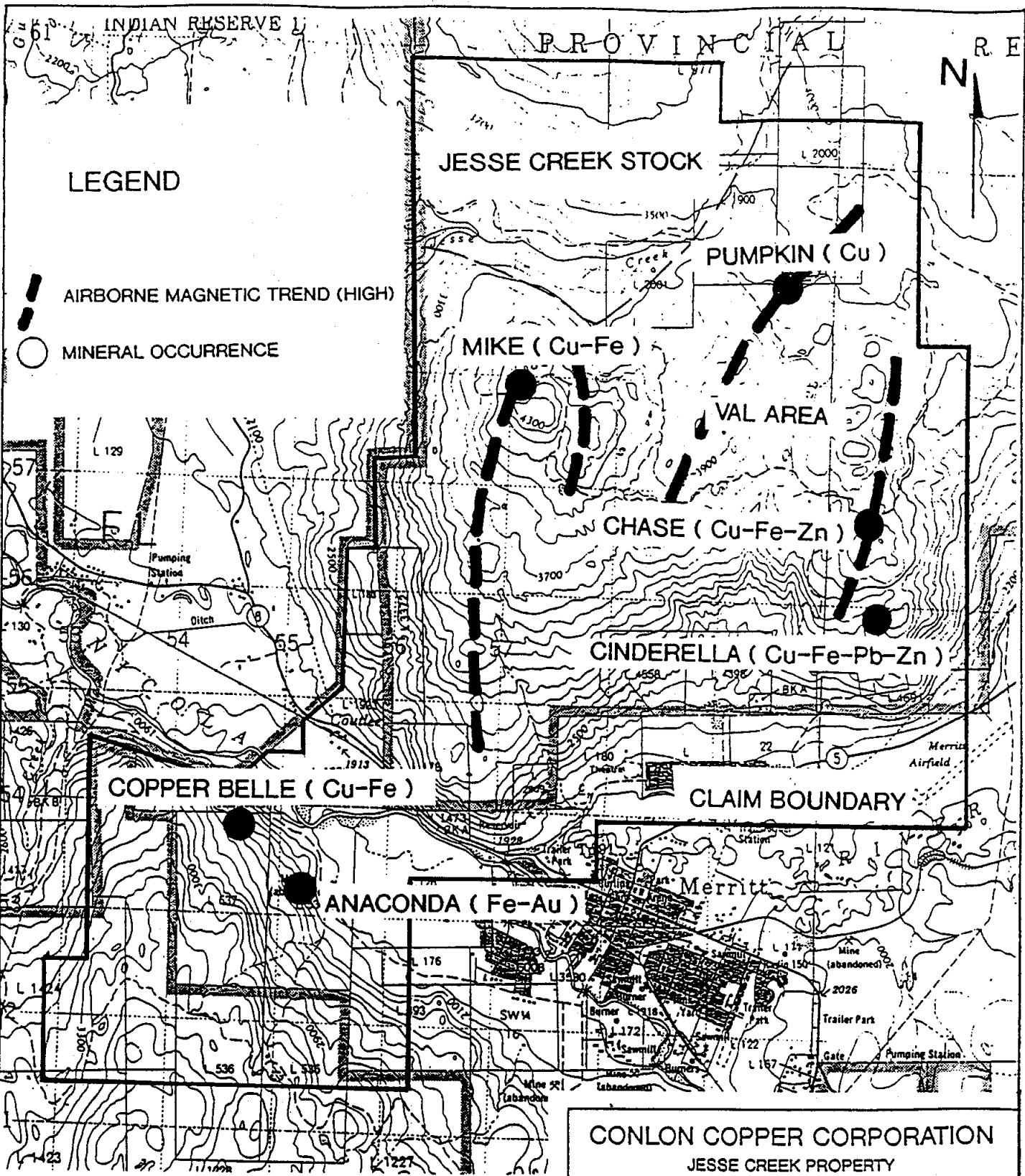
### 1.3 PHYSIOGRAPHY AND VEGETATION

The west trending Nicola Valley, with a mean elevation close to 600 metres, bisects the Jesse Creek Property (Figure 3). To the north and south, steep valley slopes with widespread talus and local cliffs give way to undulating plateau ranging from 1000 to 1300 metres in elevation. These highlands are dry with a few small ponds and are dissected by small drainages. Jesse Creek is the largest on the property and is located in the northern area. Much of the property is dominated by open coniferous woodland with some large meadows on the plateau regions. Jesse Creek Valley and the lower valley slopes on the Jean Claim are heavily wooded with much undergrowth. Large parts of the property, in particular, the north and west have been logged to varying degrees. Much of the Nicola Valley on the property is in agricultural, commercial or residential use.

### 1.4 HISTORY AND PREVIOUS WORK

The property area has a long exploration history, dating back to the 1880's. A wide variety of deposit types are present around Merritt; over 200 mineral occurrences have been documented. Gold-silver bearing quartz veins occur near Stump Lake (Enterprise-King William veins), polymetallic veins with combinations of copper, lead, zinc, gold and silver at Swakum Mountain, Nicola Lake (Turlight) and Iron Mountain (Leadville/Comstock), copper-iron skarns at Craigmont, Swakum Mountain and on the Jesse Creek Property (Cinderella-Chase, Mike, Val). The Craigmont deposit, located 10 kilometres northwest of the property, became the single major producing mine in the Merritt area in 1961 (discovered in 1957). Between 1957 and 1982, Craigmont produced a total of 29.3 million tonnes of ore averaging 1.4% copper from surface and underground workings.

The property itself has a history of copper exploration dating back to the early 1900's. Until recently, the showings covered by the Jesse Creek property were held by a number of different individuals and mining companies. This is the first time that the area and all the showings have been covered by a contiguous claim group under one owner. Over thirty exploration and small development programs have been documented on the property (Table 2). Many of these programs appear to have been small. Details on the larger programs by Peele Resources/Nippon 1964-65, Newvan Resources Ltd. 1972 and Quintana Minerals Co. 1976 are sparse, especially regarding the location and results from drilling and trenching.



**CONLON COPPER CORPORATION**  
 JESSE CREEK PROPERTY

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**MINERAL SHOWINGS AND**  
**AIRBORNE ANOMALIES**

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KAMLOOPS GEOLOGICAL SERVICES LTD.

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DATE August 1993	NTS 921/2	FIGURE <b>4</b>
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Figure 4 gives the location of the main mineral occurrences on the property. A brief description of previous exploration on each of these follows. Table 2 should be consulted for sources of reference.

**1) Copper Belle (Jean Claim)**

This area features several short adits and a number of rock cuts over a 300 metre strike length. Shallow dipping and generally narrow lenses of massive specular hematite, carbonate, quartz (replacements, veins) with chalcopyrite cut Nicola volcanics. Between 1908 and 1913, a number of small hand sorted shipments, including 47 tons averaging 7.15% Cu in 1913, were sent to Trail and Tacoma smelters. More recently between 1960 and 1985, there have been several geophysical and geochemical surveys of very limited coverage.

**2) Anaconda (Jean and Bob Claims)**

The old Anaconda workings feature a shallow pit and two caved adits. The pit has steeply dipping, fracture controlled zones of specular hematite in Nicola volcanics. There is very little information on these workings, and no work has been recorded since 1915.

**3) Cinderella-Chase (Pete and Pete#2 Claims)**

This northerly trending zone of limestone with associated copper skarn zones (local Pb and Zn) is over 2 kilometres long. It should be noted here, that, in many publications the Chase and Cinderella mineral occurrences are shown in different locations. Minfile has the Chase north of Cinderella, McMillan (1981) has Chase to the south. For the purposes of this report, the Chase is located over the northern skarn showings, the Cinderella over the south. There has been substantial though poorly documented trenching, stripping and some drilling in a number of areas. Three shallow pits of unknown age occur at the Cinderella copper, lead, zinc occurrence. Major exploration programs were conducted on the Cinderella-Chase zone by Peele Resources in 1964 and Nippon Mining Corporation in 1965. Peele's program included trenching, soils, magnetic, geological surveys and a single drillhole. Nippon conducted significant trenching and 12 drill holes. There is very little available information on these programs and some doubt exists about how many of these holes were actually completed. Quintana Minerals Co. in 1976 conducted an exploration program over the entire zone and adjacent areas. Results from a ground magnetic survey is all that is available.

In 1979, H. Allen completed a 500 foot hole at the northern end of the limestone, skarn zone with disappointing results.

**4) Mike (QZ #2 and QZ #3 Claims)**

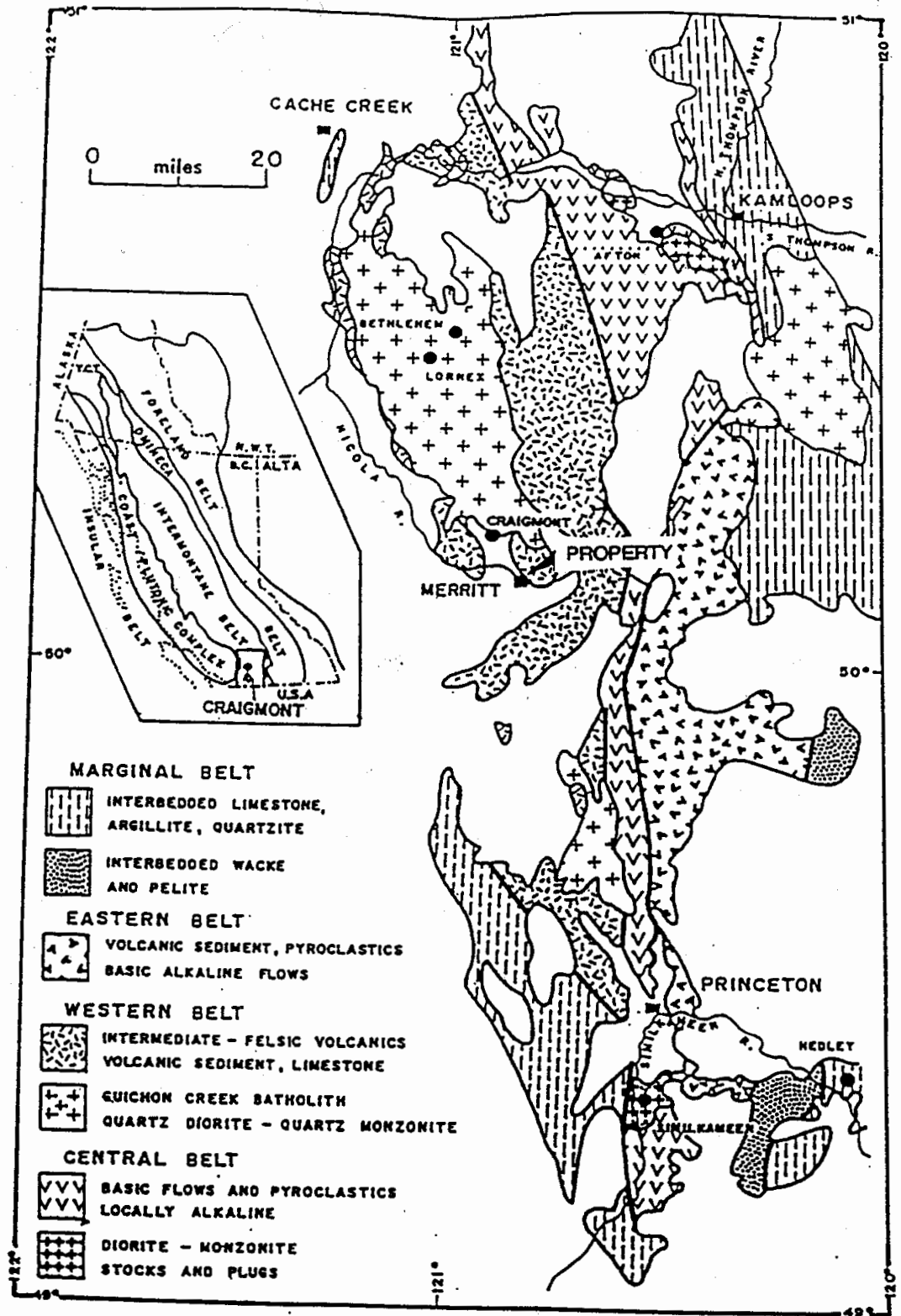
There has been significant trenching in this area, exposing a number of copper-iron skarn showings. There is also evidence on surface for a single drillhole in the trench area. None of this work is public domain. However, it is possible that this work was follow-up to a 1970 magnetic survey by Silver Key Exploration Ltd.

**5) Pumpkin-Val Area (QZ #2, Pete #2, Pete #4 Claims)**

This area lies between, and to the north, of the Mike and Cinderella-Chase occurrences. A number of old trenches and copper showings occur in this area. Quintana's magnetic survey in 1976 covered much of this area but did not extend as far west as the western copper showings. Previous to Quintana, Newvan Resources Ltd (1972) is reported to have conducted a 17,000 foot trenching program with a total of 1650 feet of drilling in eleven holes on the old Val 5 and 6 claims. Again, there is very little available data on this program. Traverses in the area indicate that much of the drilling and trenching occurred along the main northeast magnetic trend on the QZ #2, Pete #2 and Pete #4 claims.

Recent work on the property by Conlon Copper Corporation has focused on the known showings. In 1992, a preliminary grid was installed over the Val area and parts of the Cinderella, Chase and Mike showings. This physical work was filed for assessment credit earlier in 1993. A limited amount of sampling from old trenches on the grid was conducted by Greg Ven Huizen in September 1992, and confirmed copper values in the four areas with local lead, zinc and silver.

In 1993 Conlon Copper Corporation financed geological mapping and sampling programs on the Copper Belle-Anaconda (Jean), Mike and Cinderella-Chase areas of the property. The aim of these programs was to outline copper skarn and possible porphyry style targets for further exploration.



AFTER G.W.MORRISON 1980

**CONLON COPPER CORPORATION**

JESSE CREEK PROPERTY

**REGIONAL GEOLOGY**

KAMLOOPS GEOLOGICAL SERVICES LTD.

DATE August 1983

NTS 921/2

FIGURE

**5**

### 1.5 REGIONAL GEOLOGY

The Merritt area lies in the Intermontane Belt of the Canadian Cordillera and is part of Quesnellia Terrane. Within this section of Quesnellia, the Upper Triassic Nicola Group consisting of volcanics, sediments and associated intrusive rocks constitutes an island arc assemblage. Preto (1977) subdivided the Nicola Group between Nicola Lake and Princeton into three northerly trending fault bounded belts each containing a distinct lithologic assemblage (Figure 5). The Eastern Belt (TNe) facies, east and south of Nicola Lake, consists of mafic, augite phyric volcanoclastic rocks, minor volcanic flows and sedimentary rocks. The Central Belt (TNC) facies consists of alkaline mafic flows and pyroclastic rocks with abundant subvolcanic intrusions of diorite to syenite composition. The intrusive volcanic complexes host alkaline type Cu-Au porphyry deposits near Kamloops (Afton). The Western Belt (TNw) facies is an easterly facing succession of calc-alkaline mafic, intermediate and felsic volcanic rocks, syno-volcanic rhyolite plugs, volcanoclastic sediments and reefoid carbonates. These units are well exposed in the Promontory Hills west of Merritt and host the Craigmont Cu-Fe skarn deposit. Cogenetic calc-alkaline intrusive rocks, such as the Guichon Creek Batholith host plutonic copper molybdenum deposits in the Highland Valley area northwest of Merritt. The Craigmont skarn lies close to the southern edge of this batholith.

The Nicola Group is unconformably overlain by Jurassic Age Ashcroft Formation clastic sediments, and Tertiary (Eocene) Princeton Group intermediate volcanic flows and clastic sediments with coal seams (Coldwater Beds).

Major Tertiary structures, notably the Guichon Creek Fault and Clapperton-Coldwater Faults intersect west of Merritt and are extensional features.

### 1.6 PROPERTY GEOLOGY

The local geological features in the Jesse Creek property area are summarized in Figure 6. Some detailed geological mapping clearly took place during exploration programs on the Cinderella-Chase zone between 1960 and 1980 but is not available. British Columbia MEMPR 1:25,000 scale mapping is available from Preliminary Map 47 (Nicola Project-Merritt Area) by W.J. McMillan et al. released in 1981. This mapping covers much of the northern part of the Jesse Creek property.

The property lies at the southeastern end of the Guichon Creek Batholith (Triassic) where the Jesse Creek granodiorite to quartz monzonite stock intrudes



Nicola Group (Triassic) western facies mafic to felsic volcanic flows and volcanoclastic rocks. The Jesse Creek Stock is detached from the main batholith by the north trending and Tertiary age Guichon Creek Fault which lies to the west of the property. The Craigmont Copper iron skarn deposit lies on the western side of this fault on the opposite (western) side of the Guichon Creek valley.

On the property, the Nicola Group consists predominantly of variably magnetic dark green to grey, massive to plagioclase porphyritic andesite to basalt flows, monolithic tuffs and breccias.

In the Cinderella-Chase area in the eastern part of the property, there is a thick northerly trending sequence of mafic to felsic (dacite) flows, volcanoclastics, immature sediments and one or more limestone units. This sequence is deformed, with near vertical dips, and has been intruded by several dikes, sills and small plugs of diorite to quartz monzonite composition. Calc-silicate alteration is widespread in the more calcareous units. Poorly exposed copper mineralization is associated with epidote-carbonate-magnetite-specular hematite zones (minor quartz) proximal to the main limestone unit(s) and locally, in more fractured and altered micro-monzonite intrusives to the west. The geology of this area is described in detail in this report.

Another, but narrower sequence of calcareous tuffs and immature sediments occurs in the western area at the Mike occurrence. This sequence displays variable calc-silicate alteration and trends north to northwest, with steep dips and local strong fracturing and probable folding. Several skarn zones of epidote-magnetite-specular hematite and garnet are exposed in old trenches and outcrop, and display copper mineralization. Small quartz-feldspar porphyritic intrusions occur in the area. The Mike copper-iron skarn zones have some features similar to those at the Craigmont deposit.

The southern part of the property, south of Merritt, features a window of western facies Nicola volcanics exposed along the north facing valley slopes on the Jean and Paul claims. This window is approximately two kilometres wide and trends east. To the west and south, the Nicola rocks are covered by Tertiary age (Princeton Group) volcanic flows and volcanoclastics with hornblende. To the east, Coldwater beds with coal seams occur along the Coldwater fault zone. In the Nicola window, the geological environment is a roof zone with hornfelsed (magnetic) andesite to basalt flows and minor tuffs intruded by siliceous to potassic feldspar porphyries of unknown age. Fracture controlled copper mineralization is widespread, though patchy in the volcanics, and is commonly associated with specular hematite. At the Copper Belle workings, strong copper

# LEGEND FOR FIGURE 6

## LEGEND

### LITHOLOGIC UNITS

#### QUATERNARY

 Glacial, fluvio-glacial, fluvial and lacustrine deposits; colluvium, landslide deposits

 Olivine basalt, typically vesicular ("Valley basalt")

#### TERTIARY


 Small intrusions of mainly intermediate composition

#### MIOCENE

 Olivine basalt ("Chicoftin basalt")

#### EOCENE

##### KAMLOOPS GROUP

 Mainly basalt and andesite; local rhyolite, breccia, tuff and sandstone

##### PRINCETON GROUP

 Intermediate, locally mafic or felsic flows, characterized by eucular hornblende phenocrysts

 Sandstone, conglomerate, argillite, coal ("Coldwater beds")

#### PALEOCENE

 Granodiorite, tonalite and granite with K-feldspar megacrysts, of ROCKY GULCH batholith and possibly REY LAKE pluton

#### MID AND LATE CRETACEOUS

##### SPENCES BRIDGE GROUP


 Intermediate, locally felsic and mafic flows and pyroclastic rocks; sandstone, shale, conglomerate

##### SPIUS CREEK FORMATION (SPENCES BRIDGE GROUP)


 Mafic volcanic rocks


#### EARLY AND MIDDLE JURASSIC


##### ASHCROFT FORMATION


 Polymictic conglomerate, pyritic sandstone and siltstone, mudstone, blockastic calcarenite

#### LATE TRIASSIC and/or OLDER


 Hornblende-biotite and biotite granodiorite and quartz diorite (qd) of GUCHON CREEK, WILD HORSE and PENNASK batholiths, JESSE CREEK and DOUGLAS LAKE stocks and unnamed bodies

 Metamorphosed hornblende-biotite and biotite quartz diorite, granodiorite and granite (gt) of Nicola horst; F: Fragmeere variety; L: Le Jeune variety

 Metamorphosed, highly strained biotite leucatonalite and tonalite porphyry of Nicola horst


 Augite, hornblende diorite, quartz diorite; includes subvolcanic intrusions into NICOLA GROUP, m:biotite-hornblende meta-diorite of Nicola horst


 Metaperidotite (Nicola horst)


 Intermediate and mafic, rare on plagioclase- and augite-plagioclase-phyric sills and/or flows and volcanoclastic rocks; red volcanic conglomerate, sandstone, mudstone


#### LATE TRIASSIC

##### NICOLA GROUP

 Mafic and intermediate volcanic and volcanoclastic rocks, undivided; m:upper greenschist-low amphibolite facies meta-volcanic rocks, mainly in Nicola horst; hornblende and biotite-hornblende schist, amphibolite

 Western volcanic facies: mafic to felsic, plagioclase-phyric flows, pyroclastic and epiclastic breccias, tuff, wacks, minor limestone and limestone conglomerate  
T: predominantly felsic flows, tuff, welded tuff

 Central volcanic facies: mafic and intermediate plagioclase-augite-phyric flows, locally pillowed, and breccia; subordinate tuff, limestone, wacks and siltstone









 Eastern volcanic facies: mafic hornblende- and augite-phyric, predominantly epiclastic breccia, turbidite wacks, local siltstone

 Sedimentary facies: volcanic sandstone, siltstone, argillite, tuff; local polymict conglomerate

#### PALEOZOIC(?) or MESOZOIC

 Quartzite metaconglomerate, black staurolite-endonulite-mica schist

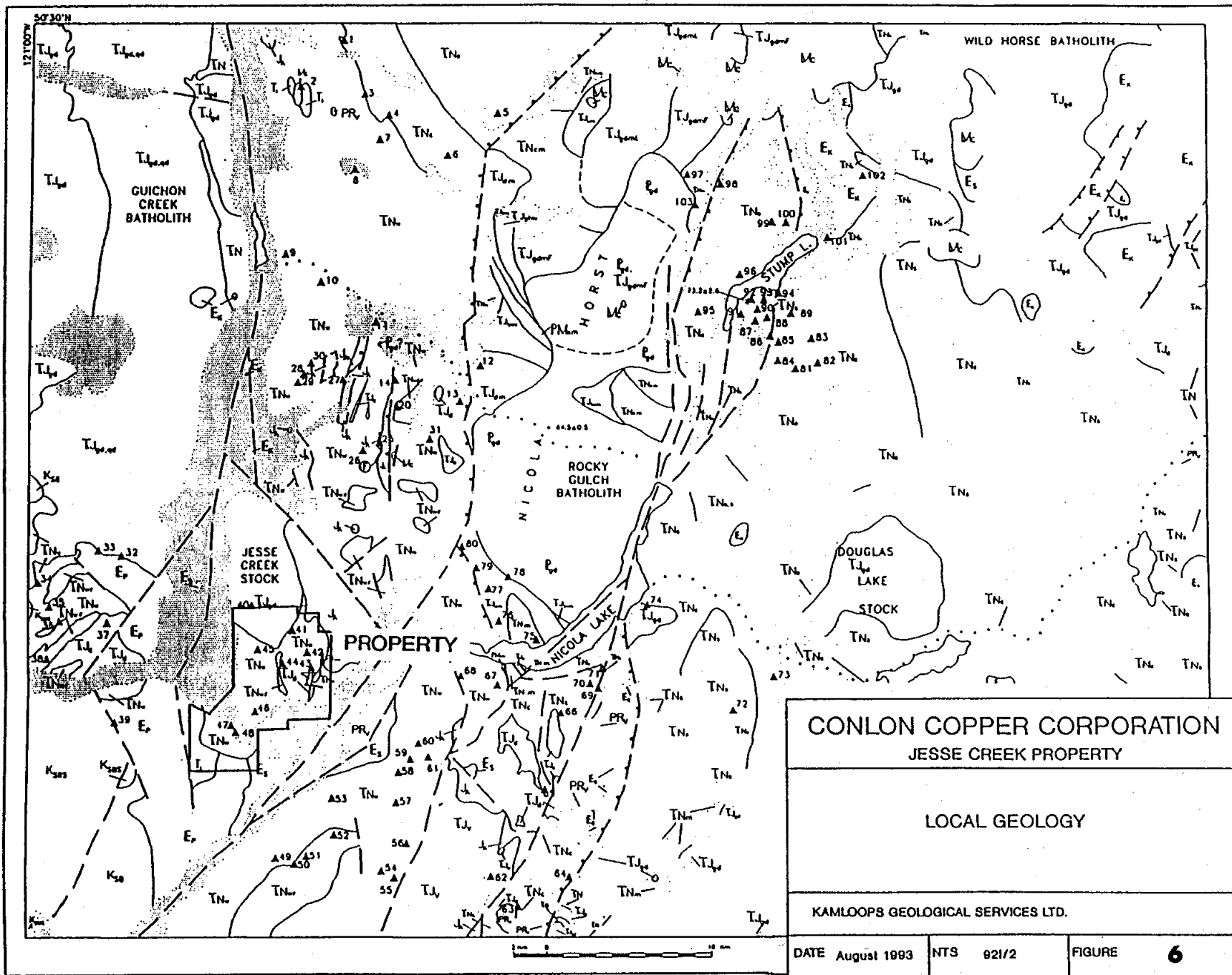
### SYMBOLS

-  Lithologic contact (broken where speculative)
-  Boundary of unconsolidated deposits
-  Fault; solid circles on downthrown side
-  Base end/or precious metal occurrence (Table 1)
-  LITHOPROBE transect route
-  Uranium-lead zircon date locality\*
-  Potassium-argon sericite schist date locality\*
-  Fossil locality\*

\* Supplementary to Monger and McMillan (1984)

### SOURCES OF DATA

- Monger, J.W.H. and McMillan, W.J., 1984: Bedrock geology of Ashcroft map area (92), scale 1:125,000, Geological Survey of Canada, Open File 980.
- Monger, J.W.H. and McMillan, W.J., 1980: Geology, Ashcroft, British Columbia, Geological Survey of Canada, Map 42-1980, sheet 1, scale 1:250,000.
- Geological mapping by J.M. Moore (1988) and J.M. Moore and A.R. Phillips (1989)
- Base map: Merritt, B.C., Map 92/3C, scale 1:100,000, Ministry of Environment, British Columbia, 1980



Geology and mineral occurrences of the Nicola Lake region (Moore *et al.*, 1990).

mineralization is associated with narrow, flat lying specular hematite-carbonate vein and replacement-zones in mafic volcanics. At the Anaconda workings, two kilometres to the east, similar specular hematite zones have steep dips with little copper, but local gold values.

Previous exploration on the property has focused on copper-iron skarn mineralization, especially since the discovery of Craigmont in 1957. Many of the drill and trench targets appear to have been geophysical (magnetic).

## 2.0 THE 1993 GEOLOGICAL PROGRAM - CINDERELLA-CHASE GRID

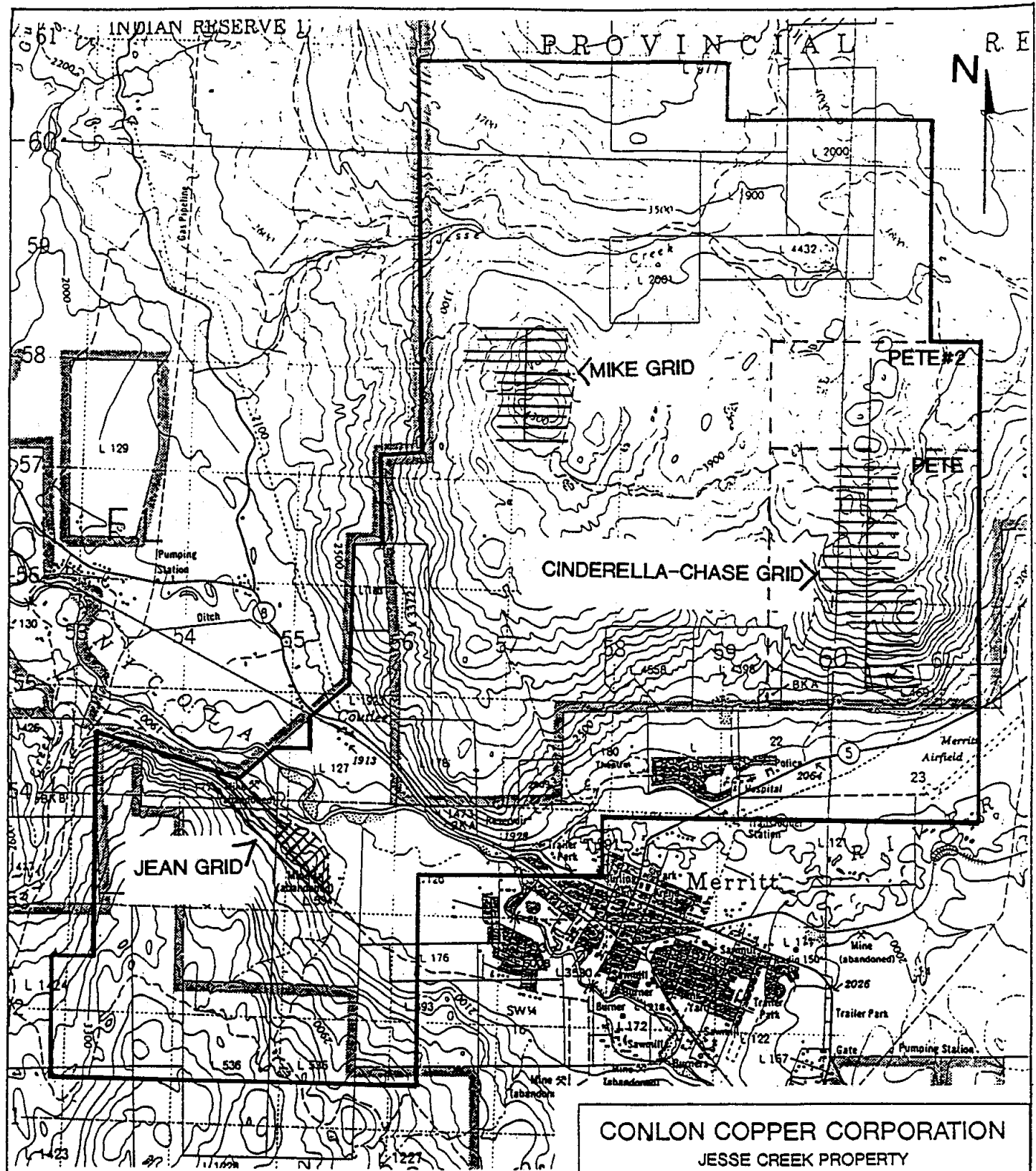
### 2.1 INTRODUCTION

During July and August 1993, a geological mapping and sampling program was conducted on the Pete and Pete#2 claims in the southern part of the property. This work focused on the area surrounding the Chase and Cinderella mineral showings. The majority of these showings lie along and near the most easterly of airborne magnetic trends shown in Figure 4. Supervision of the program, geological mapping, interpretation and report writing was by R.C. Wells P.Geol., Consulting Geologist. Grid preparation, sampling and prospecting was by P. Watt, an experienced prospector, geotechnician. R. Bernier was involved in grid preparation.

The Pete and Pete#2 claims lie along the eastern edge of the Jesse Creek Property (Figure 7). These claims straddle a southerly trending ridge that grades into the south facing slopes of the Nicola valley. Elevations range from 600 metres at Merritt airfield in the south, to 1250 metres at the ridge top in the northern area.

Topography and vegetation is quite variable in this part of the property. In the south, the steep valley slopes are talus covered with open woodland or rough meadows, and are cut by several deep gulleys (dry). Along the main ridge, cliffs and steep talus slopes occur in the Cinderella area, with a more heavily wooded bench below. In the northern area, above 1000 metres elevation, the topography is undulating. Outcrop and talus slopes with small cliffs occur along the ridge line and give way to grassed slopes and rough meadows to the west. A number of intermittent drainages occur along the more major gulleys and are heavily wooded, with mature conifers or scrub vegetation.

A network of old logging and mining roads give good access to much of this area. A gravel trail can be driven the complete length of the 1993 grid and joins Highway 5 east of Merritt hospital.



Scale 1Km

<b>CONLON COPPER CORPORATION</b>			
JESSE CREEK PROPERTY			
1993 GRID LOCATIONS			
KAMLOOPS GEOLOGICAL SERVICES LTD.			
DATE	August 1993	NTS	921/2
FIGURE	<b>7</b>		

## 2.2 SURVEY CONTROL GRID

The location of the Cinderella-Chase grid relative to the mineral claims is shown in Figure 7. It consists of a true north base line 3.0 kilometres long. East-west survey lines cover the southern 2 kilometre section, and basically all the known mineral showings in this area.

All of the lines were installed by compass and sight picketing, the baseline 0+00 was tight chained, while survey lines were by topofil. As a consequence of the steep and variable topography, great care was taken in slope correcting the 25m survey stations (using a Sunto inclinometer) and checking line spacings by tie lines. All of the lines were well flagged, with 25 metre stations identified by tyvex tags and, or pickets. In total, there were approximately 19.5 km of survey lines.

## 2.3 GEOLOGICAL SURVEY

### (a) Introduction

Geological mapping was carried out at a scale 1:2000 on the Cinderella-Chase grid. Geological (Figure 8) and sample location (Figure 9) maps are included with this report. Figure 10 is a simplification of the detailed geological map (Figure 8) and shows the distribution of main lithologies, structures and mineralized areas.

A total of 39 mineralized rock samples was taken during the mapping program and sent to Eco Tech Laboratories in Kamloops, B.C. All were tested for geochemical gold and 30 element ICP, with some follow-up assays. The analytical results with sample descriptions (Table 3) can be found in Appendix 3.

### (b) Lithology

During the 1993 geological mapping program, several distinct rock units were defined in the grid area. These are as follows:

<b>LATE TRIASSIC TO CRETACEOUS INTRUSIVE ROCKS</b>	
<b>5FP</b>	Crowded feldspar porphyry dikes.
<b>5MD</b>	Microdiorite, some micromonzonite.
<b>5D</b>	Diorite.
<b>5c</b>	Quartz-Feldspar-Porphyry. Numerous fragments. Intrusive equivalent of 4?

**LATE TRIASSIC  
NICOLA GROUP - WESTERN BELT**

- 4 Grey to pink andesite to dacite clast volcanic breccia. Siliceous quartz-feldspar-porphyry matrix common.
- 3 Massive to poorly bedded limestone. Associated limy sedimentary rocks.
- 2p Brown to pinkish, commonly porphyritic dacite to rhyolite flows and local breccias. White to pale green rhyolite.
- 2t Grey to green, massive to well bedded, fine grained locally limy tuffs.
- 2tb Grey to black lapilli tuff, breccias. Monolithic (andesitic to basaltic) to weakly heterolithic.
- 2th Heterolithic lapilli tuffs, fine to coarse lapilli tuffs, some breccias. Clasts of 2p, 1a, 1b and minor sediments.
- 1b Dark grey to green plagioclase porphyritic andesite to basalt flows. Variably magnetic.
- 1a Dark grey to green massive andesite to basalt flows. Variably magnetic. Strong magnetic and hornfelsed near Unit 5 intrusives.

**ALTERATION**

- 6b Calc-Silicate Alteration. Includes fine epidote-carbonate altered calcareous tuffs and coarse epidote-carbonate altered carbonate units.
- 6a Skarn. Medium to coarse grained mineral assemblages, including magnetite-specularite-carbonate  $\pm$  hematite, chalcopyrite.

All of the volcanic and sedimentary units on the grid belong to the western volcanic facies of the Nicola Group (Triassic). West of the grid, the volcanics consist predominantly of dark green to grey, massive to plagioclase porphyritic andesite to basalt flows (Unit 1). Where exposed on the grid, these dark coloured rocks are moderate to strongly magnetic and commonly hornfelsed (area G).

Unit 2 in Figure 13 is a grouping of a variety of rock types. Volcaniclastic rocks predominate with dark coloured monolithic (andesite) lapilli tuffs, breccias and more felsic heterolithic lapilli tuffs, breccias with andesite, dacite and local sedimentary clasts. The heterolithic tuff units are locally quite calcareous, especially where finer grained. Brown to pink potassic dacite (feldspar porphyritic) and minor green rhyolite flows occur



# LEGEND FOR FIGURE 10

## LEGEND


### LATE TRIASSIC TO CRETACEOUS INTRUSIVE ROCKS

- 5 *5c Quartz Feldspar porphyry (breccia) dykes*  
*5b Diorite, microdiorite, basalt*  
*5a Monzonite-monzodiorite dykes*



### LATE TRIASSIC NICOLA GROUP - WESTERN BELT

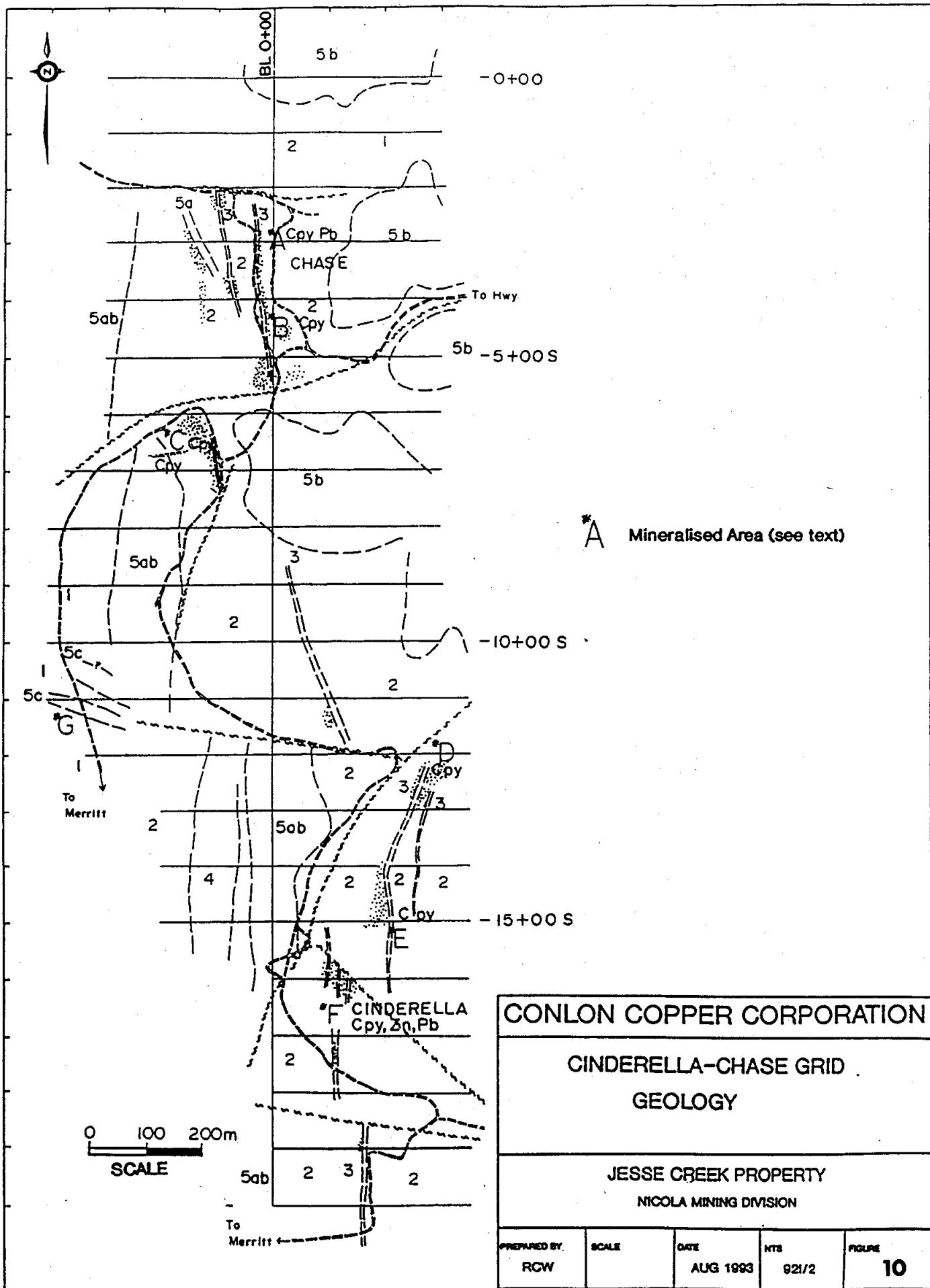
- 4 *Quartz feldspar breccias and tuffs*  
3 *Limestone*  
2 *Mixed volcanoclastic sequence. Mainly monolithic to heterolithic tuffs. Some dacite and rhyolite flows. Fine, bedded calcareous tuffs and sediments.*  
1 *Massive to feldspar porphyritic andesite to basalt flows*

### ALTERATION

-  *Observed calc-silicate and skarn alteration*

### SYMBOLS

-  *Geological contact*  
 *Fault*  
Cpy *Chalcopyrite*  
Pb *Galena*  
Zn *Sphalerite*  
===== *Old roads or trail*



CONLON COPPER CORPORATION				
CINDERELLA-CHASE GRID GEOLOGY				
JESSE CREEK PROPERTY NICOLA MINING DIVISION				
PREPARED BY. RCW	SCALE	DATE AUG 1993	NTS 921/2	FIGURE 10

within the tuff sequence. These tend to be narrow, rarely more than 5 metres thick. Interbedded with, and proximal to the limestone units (3), Unit 2 consists of fine bedded calcareous tuffs and immature sediments with more massive, fine heterolithic tuffs. Unit 3 limestone consists of several large beds and many small lenses. The largest units, up to 9 metres, thick are creamy to grey coloured, and massive to poorly bedded. These can be traced for 200 to 300 metres in the Cinderella and Chase areas. The small limestone lenses are commonly impure, and interbedded with calcareous tuffs and sediments. They are often calc-silicate altered and can rarely be traced for more than a few metres. However, taken as a unit, the calcareous tuff with limestone lenses can often be traced tens to hundreds of metres. Unit 4 consists of a thick sequence of quartz feldspar breccias and tuffs, west of the limestone sequence. They contain poorly sorted, often very large angular to subangular (local subrounded) fragments of andesite to dacite. The matrix is siliceous with coarse quartz eyes and numerous tabular plagioclase phenocrysts. A possible feeder zone occurs in the western grid area G, where the breccias form northwesterly trending dyke like bodies cutting the magnetic andesites and basalts (1).

Several intrusives (Unit 5) were identified in the grid area cutting the Nicola Sequence. One large northerly trending and steeply dipping monzodiorite to monzonite dike (Unit 5a) lies 100 to 200 metres west of the limestone sequence. A number of small monzonite dykes lie between them. For much of its length, the main dyke has relatively fresh mineralogy. However, in area C and to the north, there is local K-feldspar, epidote veining and alteration. On the hilltops east of the limestone sequence, there are large areas of intrusive, predominantly K-feldspar poor diorites, microdiorites and fine plagioclase porphyritic basalts. These are magnetic stocks and sills, which are locally difficult to distinguish from andesite to basalt flows (1). The age of these intrusives is unknown. A late Triassic to early Jurassic age is suspected.

#### **(b) Structure**

A number of larger faults have been interpreted in the grid area. These are shown in Figure 10. North, east and southwest striking fault sets are present, and postdate the Nicola Sequence and possibly most of the intrusives, especially 5MD and 5D. Easterly trending fault zones predate quartz-feldspar porphyry dikes (Unit 5c), and control quartz and base metal veins in the Cinderella area. Calc-silicate alteration is locally associated with all of the main fracture directions, especially those with easterly trend. The main east trending faults have an apparent and often large strike slip component with south

side east. Small scale folding is locally evident in some of the finer bedded units.

**(c) Metamorphism**

The effects of thermal metamorphism on the Nicola Group rocks is evident throughout the grid area. Proximal to the intrusives (Unit 5 MD and D), the more mafic volcanics are converted to strongly magnetic hornfels with epidote veinlets. It is often very difficult to distinguish metavolcanic rocks from microdiorite or micromonzonite intrusives; contacts are rarely sharp. Limy tuffs and sediments of Units 2 and 3 have been converted to calc silicate rocks and local coarse grained skarn. Massive and relatively pure limestone beds display significant recrystallization and locally can be called marble.

**(d) Alteration and Mineralization**

The close proximity of a large monzodiorite, monzonite dike to a calcareous tuff-limestone sequence over two kilometres strike length provides all kinds of interesting possibilities for skarn deposits. The volcanoclastic rocks occurring between them and lying to the west of the dike display patchy, generally weak, epidote-carbonate (calc-silicate) alteration with rare garnet. A combination of structure, intrusives and limy units appears to be very important. The strongest and most extensive calc-silicate/skarn alteration with associated copper mineralization occurs at fault intersections, as well as along easterly and northerly trending faults proximal to the limestone sequence. A variety of styles of copper, iron, lead and zinc mineralization are present. Appendix 4 gives a complete list of samples and analytical results. Short comments follow on mineralization in each of the areas A to G (shown on Figure 10).

**Area A:** chlorite, epidote, magnetite, specular hematite skarn with some quartz, chalcopyrite and galena is poorly exposed on the eastern side of a large limestone unit. This appears to be a narrow reaction skarn zone. Samples returned low copper, up to 0.15%, and Pb up to 1%.

**Area B:** lies on the same limestone unit 100 metres to the south. There is stronger fracturing in this area, though limited exposure in the old trenches. A north trending quartz vein stockwork within the limestone returned values up to 1% Cu, 45.6 gt Ag and 0.35% Zn over 1.5 metre true widths. Further to the south, poorly exposed chlorite, epidote, calcite, specular hematite skarn with blebby chalcopyrite returned 0.36% Cu from a 2.5 metre chip sample.

**Area C:** northerly and westerly striking fault zones intersect in this area close to the limestone. Strong skarn alteration with epidote and coarse specular hematite is exposed in a deep trench. Copper mineralization is patchy over a 16 metre section in the trench. In the central area there is significant quartz veining and siliceous pods. A 4.5 metre section averaged 0.19% Cu with anomalous gold (up to 80 ppb). To the southwest, a westerly trending, fracture controlled skarn zone with some K- feldspar crosses the contact between the main monzodiorite dike and tuffs. A 1.0 metre chip sample returned 0.25% Cu. In this area, the dike is locally epidote and K- feldspar altered and veined, with some fracture hosted disseminated chalcopyrite.

**Area D:** in this area there is a significant amount of old trenching and at least one drill hole. It lies close to the intersection between easterly and northeasterly striking faults. Widespread epidote alteration with local specular hematite occurs in a thick sequence of calcareous volcanics and narrow limestone units. Disseminated chalcopyrite occurs in the epidote-carbonate alteration and narrow quartz veins. A sample in this area yielded 0.99% Cu over 1.5 metres.

**Area G:** lies at the western end of the easterly striking fault seen in Area D. There is very minor skarn mineralization in this area. Old trenches expose easterly trending quartz-feldspar porphyry (breccia) dikes with disseminated pyrite and chalcopyrite. Silicified wallrocks returned 0.37% Cu (105 ppb Au) over 1 metre.

**Area E:** lies 200 metres south of area D on the same limestone trend. The limestone units are wider in this area. Calc-silicate (epidote-carbonate) alteration covers a 75 metre width of interbedded limestone and calcareous tuffs. Specular hematite, chalcopyrite and quartz occur locally; minor fine garnet may be present. Samples from this area produced 0.2% Cu and 0.3 to 1.3% Zn over 1.5 to 3.5 metre widths.

**Area F:** the Cinderella area has received a significant amount of trenching and three pits. No evidence was found for any diamond drilling. Three or more northerly striking limestone units are interbedded with epidote, carbonate altered tuffs. Bedding dips steeply to the east. In the two more southerly pits, specular hematite, chalcopyrite, minor bornite and sphalerite occur with the epidote and carbonate. Easterly trending fracture sets are present. Samples from this style of mineralization returned up to 0.93% Cu, 9.6 gt Ag over 1.7 metres. The best width returned 0.4% Cu over 3.2 metres. Zinc occurs in the 0.1% to 0.2% range.

The most northerly pit and a trench to the west expose a 4 metre wide breccia/vein zone with hematized and silicified volcanic fragments. The breccia matrix consists of quartz carbonate with disseminated to blebby chalcopyrite, galena and sphalerite. This zone trends northwest and probably represents a healed fault structure. A 4.0 metre true width chip sample across the zone returned 0.2% Cu, 1.23% Pb, 2,88% Zn.

#### 2.4 DISCUSSION AND CONCLUSIONS

The Cinderella-Chase area has had significant previous exploration but few records can be found. The main exploration target was copper-iron skarn zones similar to Craigmont and much of the work appears to have been guided by magnetic survey results.

Copper mineralization occurs in a variety of settings in the grid area:

- 1) Narrow reaction skarn zones at the edge of the main limestone unit. Cu, Pb, minor Zn.
- 2) Quartz vein stockworks hosted by limestone, minor skarn. Cu, Pb, Ag, Zn.
- 3) Fracture controlled epidote, specularite and carbonate skarn zones with local quartz veining and, or pods. Largely Cu, local Pb, Zn (anomalous gold).
- 4) Silicified zones at the margins of QFP dikes (Unit 5c). Cu (anomalous Au). Disseminated and weak fracture controlled mineralization, local epidote, hematite.
- 5) Quartz carbonate vein, breccias along southeasterly trending fracture zones. Cu, Pb, Zn, low Ag.

Skarn and calc-silicate (hornfels) hosted copper mineralization appears strongest near the intersection of north and westerly trending fault zones. Copper mineralization is also well developed where west trending structures cross the favourable volcanoclastic, limestone sequence. It is an interesting coincidence that QFP dikes (Unit 5c) and Cu, Pb, Zn mineralized veins are controlled by easterly trending structures. A combination of structure, reactive rocks (limy sequence) and intrusives appears to be important in the localization of base metal mineralization.

There is very limited outcrop along large sections of the favourable limy sequence especially where westerly trending structures have been interpreted. Copper mineralization is often strongest in these areas. Most of the previous drilling was east-west across the stratigraphy. North or south directed holes

in many cases would have been more informative. There has been no recorded drilling on the Cinderella Cu, Pb, Zn vein zone which is 4 metres wide at surface.

#### 2.5 RECOMMENDATIONS

The Cinderella-Chase area has had significant previous work but few records can be found. As stressed previously, much of the old drilling and trenching appears not to have tested the important (mineralized) structural trends. Further trenching in these areas is not recommended due to overburden depth. Several diamond drillholes are recommended in the intersection zones between structures and the limy sequence. This drilling requires carefully placed holes with close monitoring. Two to three holes should test the Cinderella vein stockwork zone to depth.

### 3.0 REFERENCES

See Table 2 (Appendix 2) for B.C. MEMPR Assessment Report Index for the Jesse Creek Property.

Ettlinger, A.D., (1990): A Geological Analysis of Gold Skarns and Precious Metal Enriched Iron and Copper Skarns in British Columbia, Canada; Unpublished PhD. thesis, Washington State University.

McMillan, W.J. et al. (1981): Preliminary Map 47 Nicola Project-Merritt Area; B.C. MEMPR.

Meinert, L.D., (1992): Skarns and Skarn Deposits; Geoscience Canada Volume 19, No. 4, Pgs 145-162.

Monger, J.W.H. (1989): Geology of Hope and Ashcroft Map Areas, British Columbia, Maps 41-1989 and 42-1989; Geological Survey of Canada, DEMR.

Moore, J.M., Pettipas, A., Meyers, R.E., Hubner, T.B.: Open File 1990-29, Nicola Lake Regional Geology and Mineral Deposits; B.C. MEMPR.

Morrison, G.W. (1980): Stratigraphic Control of Cu-Fe Skarn Ore Distribution and Genesis at Craigmont, British Columbia, CIM. Bull. August 1980, pg 109.

----- (1968): Map 5209G Aeromagnetic Series; Geological Survey of Canada, DEMR.

Ven Huizen, G.L.: 1993 (March) Summary Report on the Jesse Creek Property for Eurocan Mining (Canada) Corporation. Private Report.



## 4.0 STATEMENT OF COSTS

## JESSE CREEK PROPERTY, MERRITT, B.C.

## CINDERELLA CHASE GRID - GEOLOGICAL PROGRAM 1993

## 1. Personnel

R.C. Wells, P. Geo., Consulting Geologist

22 days field

3 days office

25 days @ \$350/day

\$ 8,750.00

P. Watt, Geotech

7 days field @ \$200/day

\$ 1,400.00

R. Bernier, Geotech

13 days field @ \$175/day

\$ 2,275.00

## 2. Support Costs

Gas, food etc.

\$ 544.52

## 3. Analytical Costs

Eco Tech Laboratories, Kamloops, B.C.

39 samples ICP + Au, 11 assays

\$ 765.59

## 4. Report Costs

Preparation, drafting reproduction

\$ 2,834.89**Total Program Cost \$ 16,570.00**

This work was largely done between July 1 and August 31, 1993. (Report completed later).

The exploration was financed by Conlon Copper Corporation, 1003-850 Burrard Street, Vancouver, B.C.

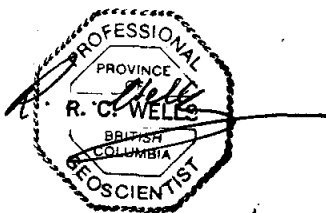
**5.0 STATEMENT OF QUALIFICATIONS**

I, Ronald C. Wells, of the City of Kamloops, British Columbia, hereby certify that:

1. I am a Member of the Geological Association of Canada
2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
3. I am a graduate of the University of Wales, U.K. with a B. Sc. Hons. in Geology (1974), did post graduate (M. Sc.) studies at Laurentian University, Sudbury, Ontario (1976-77) in Economic Geology.
4. I am presently employed as Consulting Geologist and President of Kamloops Geological Services Ltd., Kamloops, B.C.
5. I have practised continuously as a geologist for the last 14 years throughout Canada and USA and have past experience and employment as a geologist in Europe.
6. Ten of these years were in the capacity of Regional Geologist for Lacana Mining Corp. then Corona Corporation in both N. Ontario/Quebec and S. British Columbia.

R.C. Wells, P.Geo., F.G.A.C.

Dated *31<sup>st</sup> January 1994*



**APPENDIX 2**

**Table 2: Assessment Report Index - Jesse Creek Property**

**TABLE 2: ASSESSMENT REPORT INDEX - JESSE CREEK PROPERTY,  
MERRITT, B.C.**

Date	File No./ Source	Author	Type of Work	Area
1915	BCMM Ann. Rept. pg. 231		Desc. old workings	Copper Belle
1915	BCMM Ann. Rept. pg. 230		" "	Anaconda
1916	BCMM Rept. K.230		" "	Copper Belle Anaconda
1962	#402 Ass. Rept.	S. Kelly, Conford Exp. Ltd	SP, rubeanic acid, Cu	Jean area
1962	#461 Ass. Rept.	Hunting Survey Corp. Ltd	Ip. survey, Justice Group	Northern area
1964	MPR Rept 1964		Peele Resources Trenching, soils, mag, geol., 1 DDH- 144'	Cinderella
1965	#736 Ass. Rept.	D.L. Hings, Merritt, Copper Syndicate	Geomag- vectoring	W. of Jean?
1965	MPR. Rept. 1965		Nippon Program 20 trenches 4000' 10 NX holes, 2 BX holes	Cinderella -Chase
1968	#1598 Ass. Rept.	M.P. Stadnyk Laura Mines Ltd.	Geochemical- soils	NE of property
1968 <sup>1</sup>	#1799 Ass. Rept.	A.R. Allen	Geophysical- mag.	QZ #2 and #3

Date	File No./ Source	Author	Type of Work	Area
1969	#2375 Ass. Rept.	A.R. Allen Gibraltar Mines	Geophys.- geochem.	Patlo 1
1970	#2466 Ass. Rept.	A.R. Allen Silver Key Expl. Ltd	Magnetic Survey	QZ #2 and #3
1971	#3285 Ass. Rept.	N.L. Szabo Cominco	Soil Geochem.	North of QZ #2
1972	#4172 Ass. Rept.	V. Leis Alaskan Metals Ltd.	Geochem, magnetic	Patlo 1, QZ #3?
1972	M.M. Ann. Rept. 1972		Newvan Res. Ltd program Trenching, 11 holes-1650'	QZ #2, Pete #2 and #4
1976	#6132 Ass. Rept.	M.R. Wolfard, Quintana Minerals Co.	Magnetic Survey	Pete, Pete #2, Pete #4, Patlo #2, QZ #2 (Cinderella a-Chase)
1979	#7218 Ass. Rept.	S. Kelly	500' drillhole	N. Cinderella
1980	#8728 Ass. Rept.	T.B. Lewis	Geophysical	Cinderella -Pete #4
1982	#10186 Ass. Rept.	D. Faulkner	Prospecting	QZ #1 north
1982	#10210 Ass. Rept.	M.G. Schlax JMT. Services	IP. survey. 5 lines	East and N.E. area
1984	#12514 Ass. Rept.	R.W. Phendler	Geological mapping	QZ #1

**APPENDIX 3**

**Analytical Data**

**Sample Descriptions**



ASSAYING  
GEOCHEMISTRY  
ANALYTICAL CHEMISTRY  
ENVIRONMENTAL TESTING

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

AUGUST 17, 1993


CERTIFICATE OF ASSAY ETK 93-239  
=====

CONLON COPPER CORPORATION  
SUITE 1003-850 BURRARD STREET  
VANCOUVER, B.C.  
V6Z 1X3

ATTENTION: JOHN TOMPKINS  
-----

SAMPLE IDENTIFICATION: 39 ROCK SAMPLES RECEIVED AUGUST 3, 1993  
-----  
PROJECT #: CONLON COPPER

ET#	Description	Ag (g/t)	Ag (oz/t)	Cu (%)	Pb (%)	Zn (%)
1 -	125801	-	-	-	1.08	-
4 -	125804	45.6	1.33	1.01	-	-
22 -	125822	-	-	.99	-	-
27 -	125827	-	-	.93	-	-
32 -	125832	-	-	-	1.23	2.88
33 -	125833	-	-	1.10	-	-
35 -	125835	-	-	1.29	-	-
36 -	125836	-	-	-	-	-
37 -	125837	-	-	-	-	1.29

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

cc:/inv: Ron Wells

SC93/CONLON

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

CONLON COPPER CORPORATION ETK 93-239  
 SUITE 1003-850 BURRARD STREET  
 VANCOUVER, B.C.  
 V6Z 1X3

AUGUST 17, 1993

ATTENTION: JOHN TOMPKINS

VALUES IN PPM UNLESS OTHERWISE REPORTED

39 ROCK SAMPLES RECEIVED AUGUST 3, 1993  
 PROJECT #: CONLON COPPER

PAGE 1

HT#	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
1	- 125801	<5	2.0	.30	55	6	60	<5	13.33	<1	10	69	57	6.18	<.01	<10	.25	1496	21	<.01	2	230	7574	5	<20	67	<.01	<10	<1	<10	7	29
2	- 125802	<5	1.0	2.64	25	12	45	<5	10.94	<1	28	4	1437	12.07	<.01	<10	1.78	2735	1	<.01	<1	<10	54	5	<20	88	.03	<10	<1	<10	18	59
3	- 125803	<5	2.4	.51	50	4	15	<5	>15	70	7	29	757	3.32	<.01	<10	.33	4694	11	<.01	<1	250	1158	10	<20	92	.01	<10	7	70	15	3528
4	- 125804	<5	>30	.22	50	6	10	<5	2.17	16	6	236	9799	3.28	<.01	<10	.06	647	20	<.01	4	330	336	45	<20	10	<.01	<10	4	30	1	771
5	- 125805	<5	.6	.74	10	6	15	<5	>15	<1	4	63	852	3.10	.01	<10	.60	1772	4	<.01	1	280	6	5	<20	78	.04	<10	23	<10	7	43
6	- 125806	<5	2.2	1.32	40	8	75	<5	>15	7	6	45	7613	4.06	<.01	<10	1.14	2465	4	<.01	<1	360	62	15	<20	77	.05	<10	32	<10	11	123
7	- 125807	<5	1.2	1.52	40	8	70	<5	10.82	<1	21	105	1985	6.79	<.01	<10	1.33	1550	15	<.01	17	460	46	10	<20	73	.07	<10	30	10	10	120
8	- 125808	<5	.4	2.53	20	10	30	<5	7.83	<1	23	200	718	4.13	<.01	<10	2.23	1348	5	<.01	44	570	8	5	<20	112	.14	<10	88	<10	13	62
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10	- 125810	<5	4.8	1.32	25	8	55	<5	6.46	<1	34	104	2741	11.48	.06	<10	.69	900	17	<.01	8	700	8	<5	<20	61	.04	<10	27	<10	10	145
11	- 125811	<5	.2	1.62	10	6	40	<5	5.94	<1	25	97	426	3.66	.04	<10	1.20	903	8	.01	13	650	2	5	<20	62	.04	<10	19	<10	13	68
12	- 125812	105	<.2	.95	10	6	20	<5	1.33	<1	12	159	3742	2.68	.08	<10	.50	165	23	<.01	2	300	4	<5	<20	40	.03	<10	14	<10	5	15
13	- 125813	<5	<.2	1.88	120	6	40	<5	.53	<1	16	74	367	3.60	.08	<10	1.19	328	7	.04	3	440	10	5	<20	19	.10	<10	54	<10	14	45
14	- 125814	<5	<.2	1.48	15	8	15	<5	3.10	<1	10	124	798	3.91	<.01	<10	.81	455	8	.02	<1	1340	6	5	<20	105	.17	<10	7	10	18	38
15	- 125815	<5	.4	2.00	15	6	20	<5	5.18	5	12	104	1903	4.07	.02	<10	1.20	710	10	<.01	<1	1220	38	5	<20	110	.12	<10	8	<10	15	255
16	- 125816	<5	<.2	1.76	10	6	15	<5	3.28	<1	12	70	37	2.96	<.01	<10	1.29	506	4	.01	<1	1610	4	5	<20	129	.22	<10	29	<10	18	27
17	- 125817	<5	<.2	1.44	20	10	20	<5	2.58	<1	15	107	2493	6.25	<.01	<10	.63	309	9	.01	<1	1030	12	10	<20	113	.23	<10	25	10	20	19
18	- 125818	<5	<.2	1.58	20	8	20	<5	3.60	<1	13	69	41	3.88	<.01	<10	1.13	450	4	.01	<1	1260	4	5	<20	120	.21	<10	32	<10	17	24
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22	- 125822	<5	12.4	.96	15	6	25	<5	5.05	3	14	73	9416	3.52	<.01	<10	.61	1650	19	<.01	5	700	34	5	<20	88	.08	<10	7	20	11	744
23	- 125823	<5	3.6	1.29	15	4	10	<5	2.88	<1	10	104	2758	2.57	.01	<10	.41	908	11	<.01	7	490	12	<5	<20	145	.06	<10	14	<10	7	251
24	- 125824	<5	4.0	.31	85	6	5	<5	4.45	<1	11	186	4350	1.67	<.01	<10	.09	1081	14	<.01	4	160	8	15	<20	15	<.01	<10	6	10	1	305
25	- 125825	<5	7.4	.32	190	6	5	<5	6.38	13	12	129	3467	1.61	<.01	<10	.11	1281	30	<.01	2	90	698	25	<20	19	<.01	<10	11	30	1	2002



PAGE 2

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
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27 -	125827	<5	9.6	.39	115	8	20	<5	12.10	13	66	74	9012	3.84	<.01	<10	.34	3073	16	<.01	1	140	70	5	<20	92	<.01	<10	20	50	1	2482
28 -	125828	<5	3.6	1.15	20	6	15	<5	11.31	10	12	80	6997	4.77	<.01	<10	.48	2992	9	<.01	5	490	26	<5	<20	30	.07	<10	25	60	8	2430
29 -	125829	<5	1.6	1.76	15	6	10	<5	10.17	4	17	70	1967	3.25	<.01	<10	1.17	3786	7	<.01	5	850	22	5	<20	120	.22	<10	75	30	17	1247
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31 -	125831	<5	2.2	1.53	30	8	30	<5	13.95	3	21	90	3823	4.84	<.01	<10	1.50	4618	10	<.01	6	690	38	5	<20	68	.08	<10	37	20	9	1009
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33 -	125833	<5	16.2	.80	20	6	40	<5	3.83	<1	16	262	>10000	4.45	<.01	<10	.89	2099	27	<.01	12	400	110	5	<20	22	.03	<10	28	20	3	337
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35 -	125835	5	6.6	.55	30	8	20	<5	10.25	13	29	81	>10000	3.35	<.01	<10	1.23	5792	14	<.01	5	220	30	5	<20	64	.05	<10	30	70	5	3368
36 -	125836	<5	1.6	.58	15	6	5	<5	12.42	25	18	121	647	1.69	<.01	<10	1.29	5157	7	<.01	4	860	84	5	<20	81	.08	220	46	80	9	5622
37 -	125837	<5	1.6	.47	30	6	25	<5	9.33	50	33	45	722	2.98	<.01	<10	1.55	5575	5	<.01	<1	260	46	10	<20	63	.04	<10	21	170	10	9711
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39 -	125839	<5	3.8	.98	40	8	30	<5	>15	8	13	68	1862	13.05	<.01	<10	.51	3499	6	<.01	13	600	38	<5	<20	49	.06	<10	32	<10	7	2848

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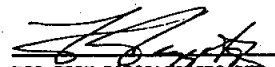
REPEAT #:

1 -	125801	1.6	.31	50	2	60	<5	13.62	<1	10	71	82	6.44	<.01	<10	.27	1575	21	<.01	<1	240	7778	5	<20	71	<.01	<10	1	<10	7	70
STANDARD	1991:	1.2	1.85	70	6	120	<5	1.53	<1	30	192	34	4.59	.30	30	1.16	1247	1	.01	70	2140	30	5	<20	133	.01	<10	52	<10	7	45

NOTE: < = LESS THAN  
> = GREATER THAN

cc:/inv: Ron Wel

EC93/CONLON

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

## CINDERELLA-CHASE GRID

## SAMPLE LIST

ECO TECH NO.	LOCALITY	COMMENTS
125801	N-S Trench 3+05S 0+25W	30 cm grab. Dark chlorite, calcite, magnetite, specularite vein zone significant quartz. Pyrite, minor chalcopyrite, patchy galena.
125802	N-S Trench 3+20S 0+25W	1.2 m E-W chip sample. Strong chlorite, epidote, magnetite, specularite, cubic Py, local dissem. Cpy. contact skarn.
125803	Rock cut 3+50S 0+25W	1.5 m panel sample hematite-carbonate (limestone) breccia, quartz vein stockwork. Patchy m/c grained Cpy, minor galena and sphalerite.
125804	Rock cut 3+54S 0+25W	1/5 m E-W chip sample. Brecciated limestone with quartz carbonate vein stockwork. Hematite-carbonate angular fragments. Disseminated m/c grained Cpy, local Py.
125805	Edge of trench 4+20S 0+25W	1.5 m E-W chip sample. Dark chlorite carbonate, blebby Cpy.
125806	" "	Adjacent 1.5 E-W chip sample. Limestone, epidote-specularite skarn contact. Coarse Cpy with quartz calcite.
125807	Trench NW 6+50S 1+25W Continuous chips	7.6-8.7 m calc silicate, patchy coarse specularite, local fine Cpy. Fracture controlled.
125808	" "	8.7-10.0. As above stronger epidote.
125809	" "	10.0-12.5. Much quartz, oxidized local Py, Cpy.
125810	" "	12.5-14.6 Much quartz, oxidized locally Py, Cpy. Also local coarse specularite, coarse Cpy local relict tuff textures.
125811	" "	14.6-16.0. As above, less chalcopyrite, specularite and quartz.
125812	Trench 11+15S 3+15W	1 m panel sample. Strongly silicified wallrocks to QFP breccia dyke. Patchy disseminated Cpy.
125813	Rock cut 11+00S 3+68W	Grab QFP breccia dyke. Disseminated f/m grained Py, minor Cpy.

ECO TECH NO.	LOCALITY	COMMENTS
125814	Trenches 6+78S 1+75W	3.9 m to W. 1.4 m N-S chip. Banded epidote, k.feldspar, calcite 1-10 cm scale. Patchy coarse specularite local Cpy, Py.
125815	" "	5.5 m to 2.2 m N-S chip. Strong epidote, minor calcite, dark chlorite, qtz, specularite, dissem. Cpy.
125816	Trenches 6+78S 1+75W	20.0 m to west. 2.0 m N-S chip. As 125815 but little Py, Cpy.
125817	" "	32.0 m to west. 1.0 m N-S chip. More siliceous with malachite, Cpy, specularite, magnetite.
125818	" "	42.0 m to west 1.4 m N-S chip. Very strong epidote, minor calcite. Significant k.feldspar. Altered microdiorite wallrocks. Sparse Cpy.
125819	Trench 4+62S 0+20E	2.2 m chip. Epidote-carbonate rock, silicified wallrocks with Py to 8%. Local specks of Cpy.
125820	Trench 4+00S 0+25E	Grab. Fine grained pinkish dacite, clots of altered mafics. 5-7% disseminated Py commonly clusters 5-10 mm.
125821	Rock cut 4+20S 0+20E	1.8 m E-W chip. Strongly oxidized fracture zone. Silicified, bleached dacite, tuff.
125822	Trench 12+55S 2+65E	Epidote altered wallrock with disseminated Cpy in footwall.
125823	Trench 12+55S 2+90E	Weak to moderate epidote-carbonate. Disseminated Cpy, minor bornite?
125824	Pit 1 16+12S 1+40E	2.0 m E-W chip north face. Brecciated milky quartz, blebby Cpy, local bornite, specularite. Best mineralization near wallrock contact.
125825	" "	1.0 m E-W chip, south face. As above.
125826	" "	1.0 m E-W chip, south face (East of above). Silicified carbonated tuff wallrocks and quartz Cpy vein.
125827	Pit 2 16+30S 1+27E	1.7 m E-W chip, north face. Brecciated quartz-carbonate local specularite zones, blebby Cpy, local bornite.
125828	Outcrop 16+38S 1+20E	1.4 m E-W chip west of pit. Epidote alteration, local blebby fracture Cpy, bornite.
125829	Outcrop 16+35S 1+15E	2.7 m N-S chip across epidote-calcite-Cpy zone.

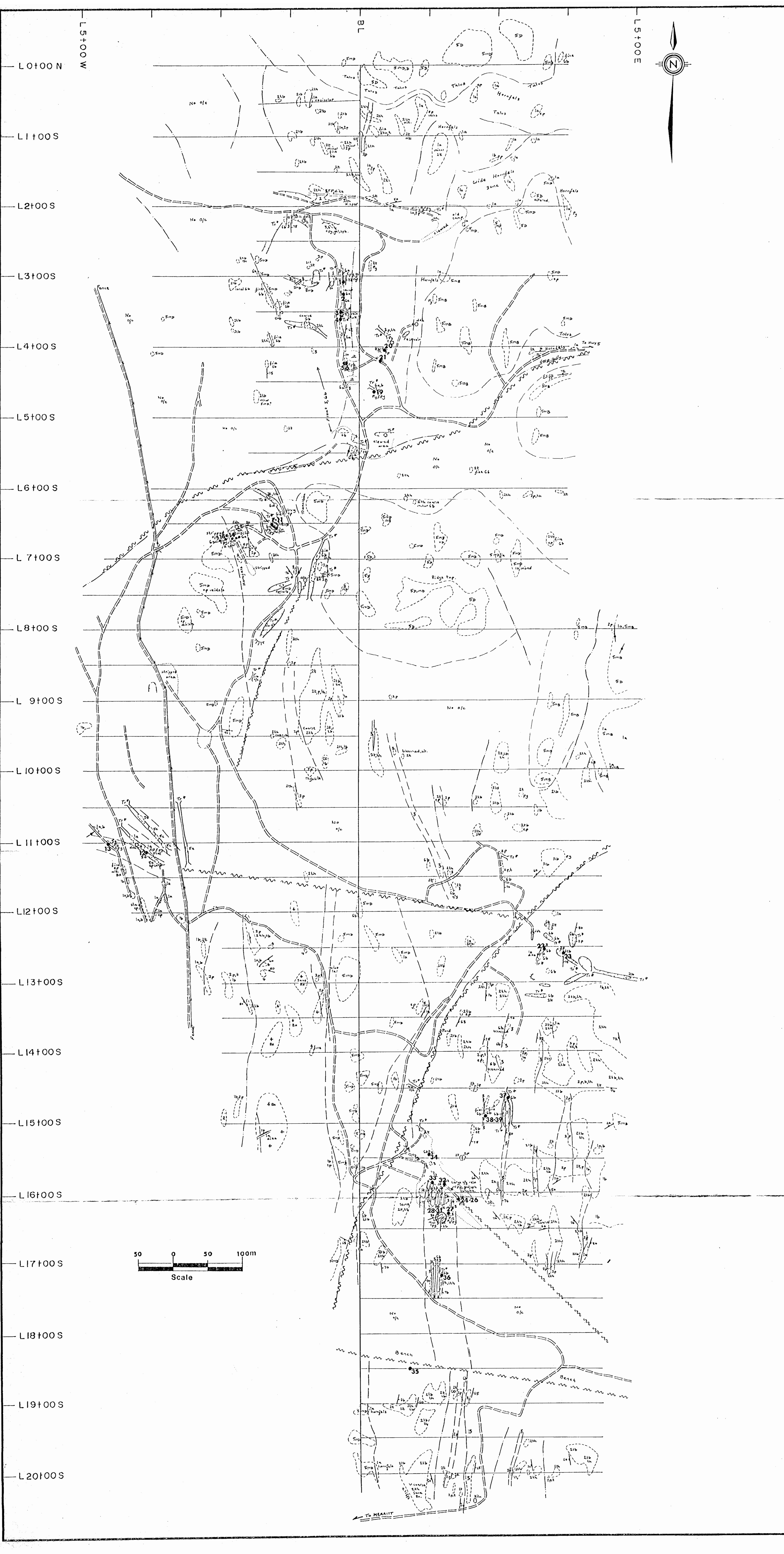
ECO TECH NO.	LOCALITY	COMMENTS
125830	Outcrop 16+32S 1+15E	3.20 m E-W chip epidote, carbonate, fracture Cpy.
125831	Pit 3 16+38S 1+15E	3.30 m E-W chip, north wall, bottom of pit. Epidote-carbonate, much malachite staining.
125832	Trench 15+90S 1+20E	4.0 m N-S chip. Massive to brecciated quartz vein-stockwork zone. Wallrock angular fragment to 10 cm with hematite. Carbonated tuff wallrock. Local cpy, significant galena and sphalerite.
125833	Trench 15+85S 1+00E	0.75 m N-S chip. 30 cm vein zone with quartz, Cpy, minor hematite, bornite.
125834	Outcrop 15+40S 1+00E	1.0 m chip E-W. Across epidote-calcite zone with quartz veins and patchy Cpy.
125835	Boulder 18+50S 0+65E	Grab epidote-coarse calcite. More than 5% coarse blebby Cpy minor galena.
125836	Rock cut 17+10S 1+05E	Grab over 1.0 m. Massive chlorite-epidote-calcite, coarse specularite, local Cpy.
125837	Trench 14+54S 2+06E	3.5 m chip. Epidote-calcite-silica pod. East trending quartz veining Cpy, specularite, sphalerite.
125838	Outcrop 14+90S 1+72E	1.5 m E-W chip. Epidote-calcite-silica, Cpy. Minor galena, sphalerite.
125839	Outcrop 14+90S 1+73E	1.5 m E-W chip. As above.

**APPENDIX 4**

**Large Figures and Plans**

**Figure 8: Cinderella-Chase Grid: Geology Map**

**Figure 9: Cinderella-Chase Grid: Sample Location Map**



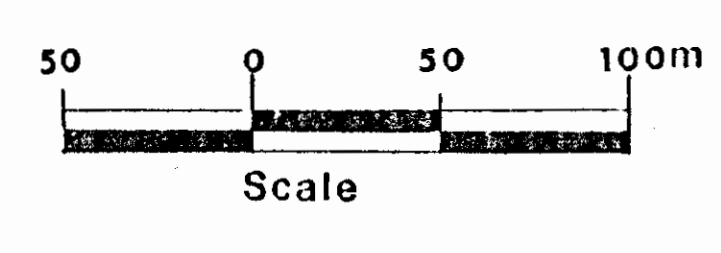
LEGEND

- LATE TRIASSIC TO CRETACEOUS INTRUSIVE ROCKS**
- 5FP Crowded feldspar porphyry dikes.
  - 5MD Microdiorite, some micromonzonite.
  - 5D Diorite.
  - 5c Quartz-Feldspar-Porphyry. Numerous fragments. Intrusive equivalent of 4f
- LATE TRIASSIC NICOLA GROUP - WESTERN BELT**
- 4 Grey to pink andesite to dacite clast volcanic breccia. Siliceous quartz-feldspar-porphyry matrix common.
  - 3 Massive to poorly bedded limestone. Associated limy sedimentary rocks.
  - 2p Brown to pinkish, commonly porphyritic dacite to rhyolite flows and local breccias. White to pale green rhyolite.
  - 2t Grey to green, massive to well bedded, fine grained locally limy tuffs.
  - 2tb Grey to black lapilli tuff, breccias. Monolithic (andesitic to basaltic) to weakly heterolithic.
  - 2th Heterolithic lapilli tuffs, fine to coarse lapilli tuffs, some breccias. Clasts of 2p, 1a, 1b and minor sediments.
  - 1b Dark grey to green plagioclase porphyritic andesite to basalt flows. Variably magnetic.
  - 1a Dark grey to green massive andesite to basalt flows. Variably magnetic. Strong magnetic and hornfelsed near Unit 5 intrusives.
- ALTERATION**
- 6b Calc-Silicate Alteration. Includes fine epidote-carbonate altered calcareous tuffs and coarse epidote-carbonate altered carbonate units.
  - 6a Skarn. Medium to coarse grained mineral assemblages, including magnetite-specularite-carbonate ± hematite, chalcocopyrite.

SYMBOLS

- Area of outcrop
- Geological boundary: defined, approximate
- Fault: approximate
- Bedding: inclined, vertical
- Jointing: inclined, vertical
- Trench
- Cleared area
- Pit, shallow shaft
- Diamond drill hole collar, direction of hole indicated
- 1993 grid line
- Valley axis and, or intermittent drainage
- Trail
- Fence

● 31 1993 Sample Location (last 2 digits of sample number)



**CONLON COPPER CORPORATION**  
 JESSE CREEK PROPERTY

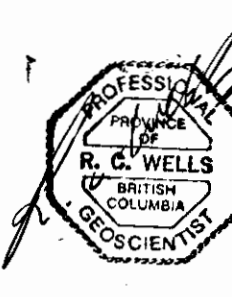
**CINDERELLA - CHASE GRID**  
 SAMPLE LOCATION MAP

KAMLOOPS GEOLOGICAL SERVICES LTD.

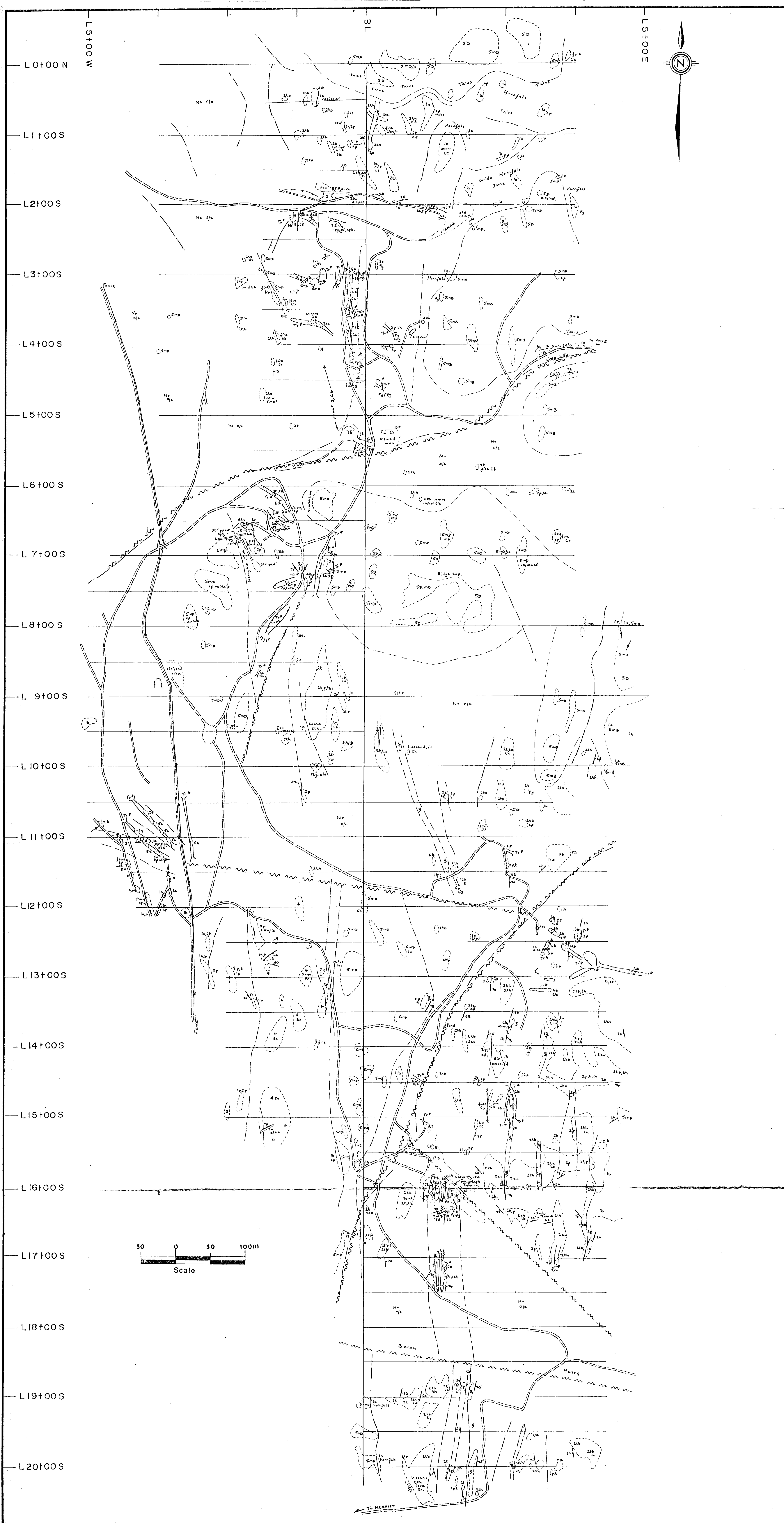
DATE JANUARY 1994 NTS 921/2 FIGURE 9

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

23,258







**LEGEND**

**LATE TRIASSIC TO CRETACEOUS INTRUSIVE ROCKS**

- 5FP Crowded feldspar porphyry dikes.
- 5MD Microdiorite, some micromonzonite.
- 5D Diorite.
- 5c Quartz-Feldspar-Porphiry. Numerous fragments. Intrusive equivalent of 4?

**LATE TRIASSIC NICOLA GROUP - WESTERN BELT**

- 4 Grey to pink andesite to dacite clast volcanic breccia. Siliceous quartz-feldspar-porphiry matrix common.
- 3 Massive to poorly bedded limestone. Associated limy sedimentary rocks.
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- 1a Dark grey to green massive andesite to basalt flows. Variably magnetic. Strong magnetic and hornfelsed near Unit 5 intrusives.

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**SYMBOLS**

- Area of outcrop
- Geological boundary: defined, approximate
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- Trench
- Cleared area
- Pit, shallow shaft
- Diamond drill hole collar, direction of hole indicated
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- Valley axis and, or intermittent drainage
- Trail
- Fence

**CONLON COPPER CORPORATION**  
JESSE CREEK PROPERTY

**CINDERELLA - CHASE GRID**  
GEOLOGY MAP

KAMLOOPS GEOLOGICAL SERVICES LTD.

DATE: JANUARY 1994    NTS: 921/2    FIGURE: 8

**GEOLOGICAL BRANCH**  
ASSESSMENT REPORT

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