BRITISH COLUMBIA

PROSPECTORS ASSISTANCE PROGRAM

MINISTRY OF ENERGY AND MINES

GEOLOGICAL SURVEY BRANCH

PROGRAM YEAR:	1997/1998
REPORT #:	PAP 97-27
NAME:	CATHERINE RIDLEY

REPORT TO THE

BC PROSPECTOR'S ASSISTANCE PROGRAM

REFERENCE NUMBER 97/98 P66

ON ACTIVITIES CARRIED OUT

IN THE CARIBOO MINING DIVISION

QUESNEL LAKE MAP SHEET #93A

BY

CATHERINE J RIDLEY

EAGLE CREEK, BC VOK 1LO

DECEMBER 1997

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM (continued)

B. TECHNICAL REPORT

- One technical report to be completed for each project area.
- **Refer to Program Requirements/Regulations, section 15, 16 and 17.**
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (*see* section 16) required with this TECHNICAL REPORT.

Name C.J Ridley Reference Number 97/98 P66

LOCATION/COMMODITIES

Project Area (as listed in Part A) Regional Project MINFILE No. if applicable Ø

Location of Project Area NTS 93 A/2 : 93A/1 Lat _____ Long _____

Description of Location and Access ~ 26 Km. NE of Eagle CK; by way of 6000 rd. to Y then 7000 rd to Art CK. Forest Rd.

Main Commodities Searched For Gold, copper, zinc, lead, silver

Known Mineral Occurrences in Project Area Gold - HEN-DX claims

WORK PERFORMED

1. Conventional Prospecting (area) See report + maps
2. Geological Mapping (hectares/scale) See report maps
3. Geochemical (type and no. of samples) 45 soil samples: 11 silts; 28 ROCKS
4. Geophysical (type and line km) Ø
5. Physical Work (type and amount) (≈ 150 Rx) rock collecting for specimens
6. Drilling (no. holes, size, depth in m, total m) Ø
7. Other (specify) _____

SIGNIFICANT RESULTS

Commodities As, Au Claim Name Art 1-4 claims

Location (show on map) Lat 650,500 E Long 5764,500 N Elevation _____

Best assay/sample type 1950 ppb Au - in rock (Art97:DR4)
see report for further details

Description of mineralization, host rocks, anomalies _____

Supporting data must be submitted with this TECHNICAL REPORT

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act.*

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SUMMARY

THE 1997 FIELD SEASON WAS CONDUCTED IN AN AREA APPROXIMATELY 75 KILOMETERS NORTHEAST OF 100 MILE HOUSE. IT IS EASILY ACCESSED BY PAVED AND GRAVEL ROADS.

TWO NEW CLAIM BLOCKS WERE ADDED TO THE MAP SHEET AS A RESULT OF THIS SEASONS WORK. THE ART 1 - 4 WAS STAKED BY D. RIDLEY AS THEY WILL BE ANNEXED TO THE HEN-LEDGE-DL CLAIMS WHICH LIE A SHORT DISTANCE TO THE NORTH. THE ART 1 - 4 CLAIMS COVER GOLD, COPPER, ARSENIC AND ZINC ANOMALIES IN ROCKS AND MULTI-ELEMENT ANOMALIES IN SOILS. THE CELTIC CLAIMS WERE STAKED TO COVER AN OUTCROPPING OF STAUROLITE AND ANDALUSITE SCHIST.

THE DECEPTION CREEK SURVEYS PRODUCED A NEW VALUABLE INSIGHT ON A POSSIBLE SKARN BODY.

THE ONLY OTHER FIND OF ANY SIGNIFICANCE WAS IN THE B0SS CREEK OR 6200 RD AREA. AN OUTCROPPING OF TERTIARY BASALT FLOW CONTAINING PERIDOT/OLIVINE CRYSTALS WAS DETECTED IN THE DITCH BESIDE THE ROAD AND WAS LATER FOUND TO EXTEND INTO THE BORDERING CLEAR-CUT.

A TOTAL OF 47 DAYS WERE SPENT IN THE FIELD WITH THIRTY ONE COMPLETED BY THE AUTHOR AND ANOTHER SIXTEEN BY MY PROSPECTING PARTNER, D. RIDLEY. TWENTY-FOUR ROCK, ELEVEN SILT AND FORTY-FIVE SOIL SAMPLES WERE SENT FOR ANALYSIS. NINETEEN SOILS WERE ALSO COLLECTED BUT NOT YET SENT IN FOR ANALYSIS. A SUITE OF 77 HAND SPECIMENS WERE COLLECTED AND REPRESENT A SAMPLE OF EVERY ROCK OR ALTERATION ASSEMBLAGE ENCOUNTERED.

IN ADDITION TO THE FIELD DAYS MENTIONED ABOVE, SEVERAL DAYS WERE SPENT CHECKING OUT NEW LOGGING ROADS AND LOOKING FOR ANY FRESH ROCK EXPOSURE. THIS TYPE OF ROAD TRAVERSE IS A HIGHLY EFFECTIVE METHOD WHEN USED EARLY IN THE YEAR. IT DETERMINES ROAD CONDITIONS AT HIGHER ELEVATIONS AND IT ELIMINATES CERTAIN AREAS FROM FURTHER STUDY.

IN SUMMARY, THE ART 1-4 IS PERHAPS THE MOST EXCITING FIND AS IT INDICATES POSSIBLE ECONOMIC MINERALIZATION IN THE REGIONAL NORTH/SOUTH FAULT SITUATED NEAR THE CONTACT BETWEEN BLACK PHYLLITES AND THE MORE VOLCANIC ROCKS TO THE WEST.

INTRODUCTION

1997 FIELD RESULTS ARE MOST ENCOURAGING. A NEW MINERALIZED SHOWING WILL BE ADDED TO MINFILE AND TWO SEPARATE EXPOSURES OF INDUSTRIAL MINERALS WERE IDENTIFIED AND MAPPED.

SULPHIDE MINERALIZATION APPEARS TO HOLD THE BEST ECONOMIC PROMISE IN THE RHYO-DACITE ROCKS OF THE ART 1-4 CLAIMS. DECENT VALUES OF ARSENIC AND GOLD HAVE BEEN FOUND IN THE ROCKS. ANOMALOUS VALUES FOR ARSENIC AND MAGNESIUM WERE FOUND TO EXIST IN THE SOILS. THESE CLAIMS WERE STAKED BY THE AUTHORS PARTNER, D. RIDLEY AS THEY WILL BE ADDED TO THE HEN - LEDGE - DL CLAIM BLOCKS.

THE CELTIC CLAIMS WERE STAKED TO COVER A LARGE EXPOSURE OF STAUROLITE /ANDALUSITE SCHIST. THIS OCCURRED AS A DIRECT RESULT OF A VISIT BY REGIONAL DISTRICT GEOLOGIST BOB LANE WHO WAS SOON FOLLOWED BY INDUSTRIAL MINERALS GEOLOGIST GEORGE SIMANDL. THEY PROVIDED VALUABLE GUIDANCE IN CONSIDERING VARIOUS POSSIBILITIES FOR DEVELOPMENT OF THE CLAIMS. DISCUSSIONS WITH GEORGE SIMANDL CONCERNING INDUSTRIAL MINERALS AND GEMS RESULTED IN ONE DAY NOT REPORTED HERE, SPENT INVESTIGATING A SHOWING OF OPAL IN THE TERTIARY SKULL HILL ROCKS OF THE SOUTH CANIM LAKE AREA. UNFORTUNATELY THE QUALITY OF THE OPAL IS QUITE POOR. HOWEVER IT IS DECENT SPECIMEN MATERIAL AND A LOCAL LANDSCAPING BUSINESS IS QUITE INTERESTED IN BOTH THE OPAL AND THE STAUROLITE.

SAMPLING DONE IN THE DECEPTION CREEK AREA PROVIDED VALUABLE INFORMATION ON THE EXISTENCE OF A CALC-SILICATE SKARN. TUNGSTEN ANOMALIES OCCUR IN SILTS ON THE NORTH SIDE OF DECEPTION CREEK AND THE DISCOVERY OF THE SKARN MAKE THIS A VIABLE TARGET FOR MORE EXPLORATION.

THE HENDRIX MOUNTAIN TRAVERSES UNCOVERED NOTHING MORE THAN THE UBIQUITOUS AUGITE PORPHYRY KNOWN TO EXIST IN LARGE PARTS OF THE AREA.

CLEAR-CUTS ADJACENT TO THE HEN-LEDGE-DL CLAIMS WERE PROSPECTED, AND MAPPED WHEN OUTCROP WAS ENCOUNTERED, AS WERE ALL ROADS LEADING TO THEM.

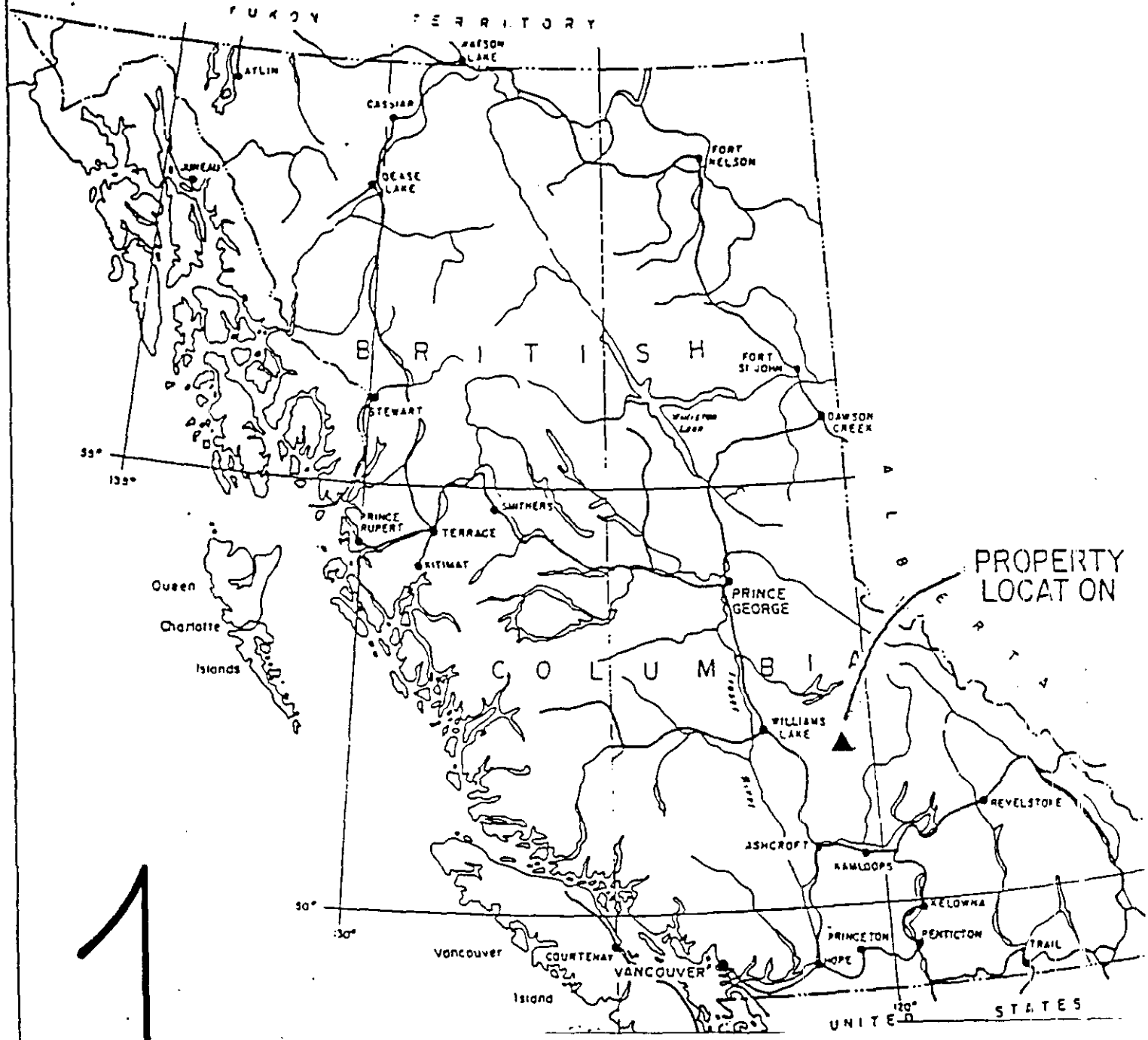
A NEW SHOWING ON THE BURTT CREEK ROAD IN A CHLORITE AND CALCITE RICH VOLCANIC FAULT GOUGE RETURNED NUMBERS OF 1055 ppm ZINC, 143.9 ppm CADMIUM AND 1112 ppm STRONTIUM. THIS GROUND PROVED TO BE VERY CLOSE TO CLAIMS HELD BY FELLOW PROSPECTOR HERB WAHL AND THE AREA WAS ADDED TO HIS CLAIMS.

THE 6200 RD (BOSS CREEK) TRAVERSES REVEALED A NEW OUTCROPPING OF TERTIARY LAVA FLOW, CONTAINING PERIDOT/OLIVINE IN CHRYSOLITE CLASTS.

OVERBURDEN WAS A HINDRANCE IN MANY OF THE EXISTING AND NEW CLEAR-CUTS WHICH WERE EXAMINED DURING THE SURVEY. OUTCROP EXPOSURE AT LOW TO MID- ELEVATIONS IS SCANT, DUE EITHER TO OVERBURDEN OR HEAVY MOSS COVERING. HANDSAMPLES WERE COLLECTED IN ALL AREAS IN ORDER TO ACCUMULATE A REGIONAL SUITE.

THE FOLLOWING REPORT DETAILS WORK DONE IN ALL SECTORS THIS YEAR AND PROVIDES IN DEPTH STUDIES OF THE MAIN AREAS OF MINERALIZATION. THE REGIONAL PROGRAM MAP PROVIDES AND OVERVIEW OF ALL REGIONS COVERED IN THIS YEARS' SURVEY.[1]

[1] SEE FIGURE 6: REGIONAL PROJECT LOCATION MAP



N

GENERAL LOCATION MAP
1997 PROSPECTING SURVEY
CARIBOO MD NTS 93A
FIGURE 1 DEC. 1997 CJR

LOCATION AND ACCESS[1]

THE CENTER OF THE PROJECT AREA IS SITUATED APPROXIMATELY 75 KILOMETERS NORTHEAST OF 100 MILE HOUSE, BC AND IS LOCATED ON QUESNEL LAKE MAP SHEET #93A.

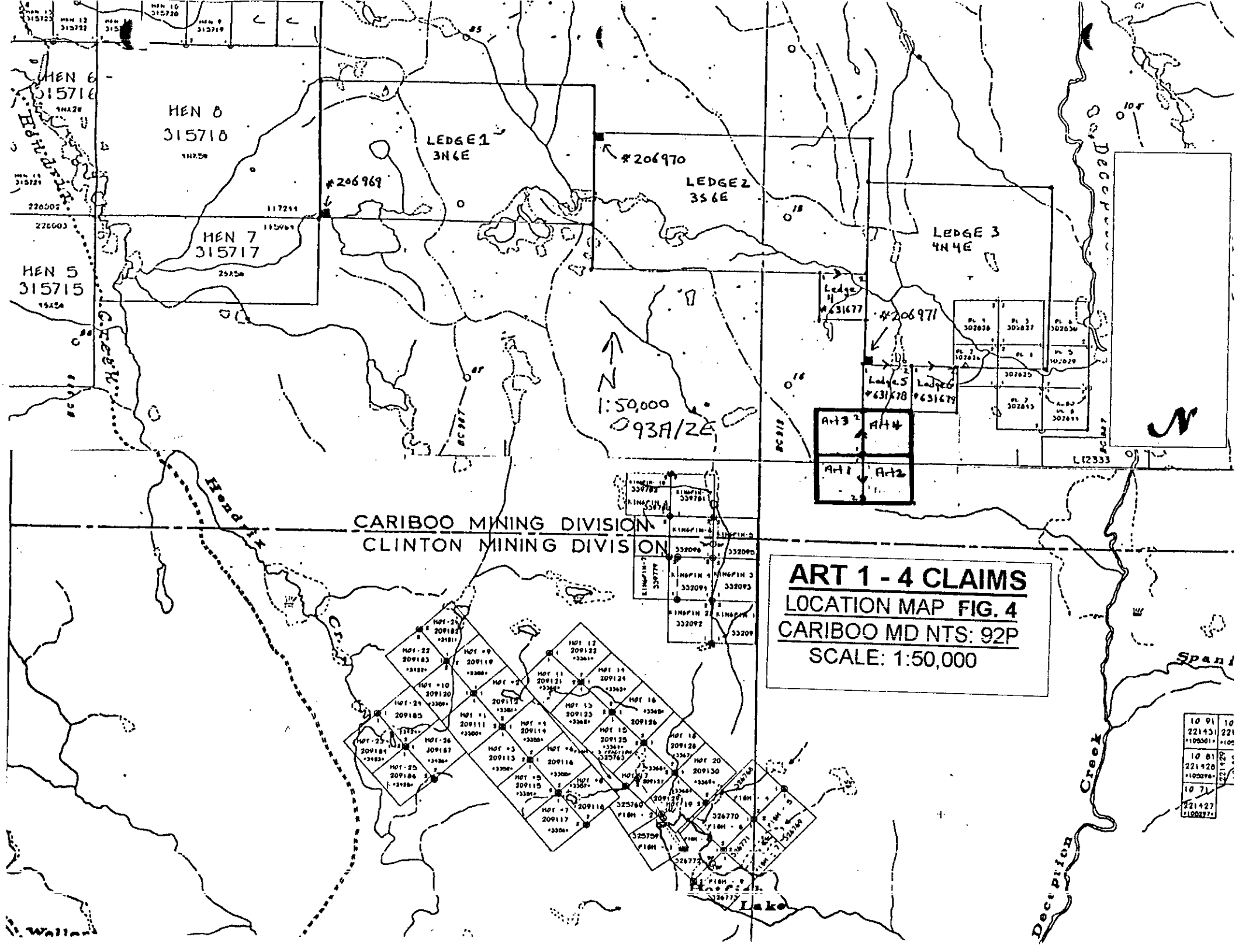
ACCESS FROM HIGHWAY 97 IS VIA THE CANIM-HENDRIX ROAD 58 KILOMETERS TO EAGLE CREEK BRIDGE. THEN BY THE HENDRIX LAKE (6000 RD) TO THE JUNCTION OF THE DECEPTION CREEK (7000 RD). THE 7000 RD IS FOLLOWED FOR ANOTHER 23 KMS TO THE JUNCTION OF THE 7300RD. ACCESS TO THE CELTIC CLAIMS IS GAINED BY TAKING THE 7300 RD FOR 2.3KM.

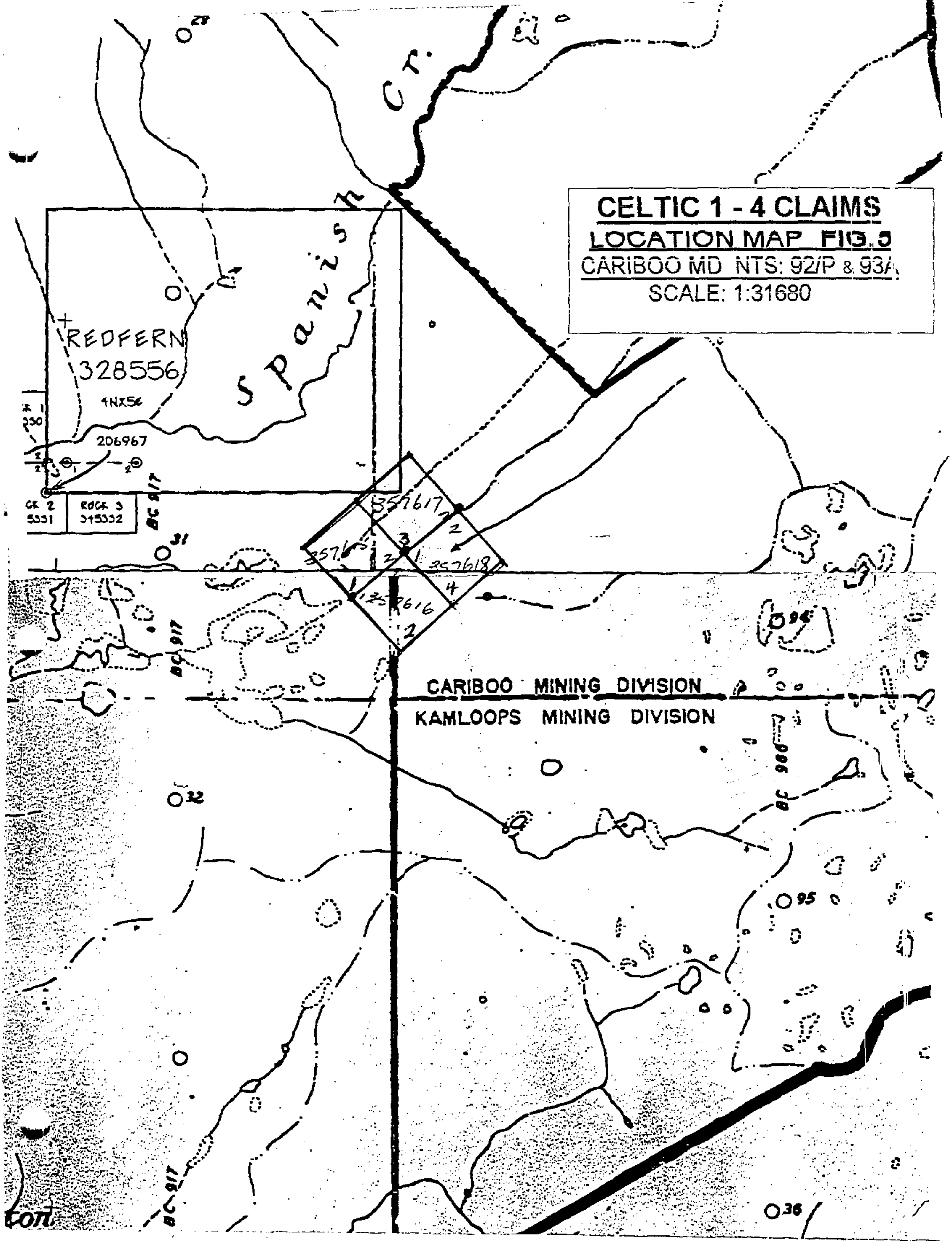
ACCESS TO THE HEN MAIN SHOWING AND WESTERN PORTION OF THE LEDGE GROUP IS GAINED BY STAYING ON THE 6000 RD TO ITS JUNCTION WITH THE 6300 RD. THIS ROAD BRANCHES MANY TIMES, PROVIDING EXCELLENT ACCESS TO THE CLAIMS AND PERIPHERY OF THE CLAIM BOUNDARIES.

A NETWORK OF FORESTRY AND LOGGING ROADS BRANCHING OFF BOTH THESE MAIN ROADS PROVIDE READY PASSAGE FOR TRUCK OR ATV. THOUGH IT MUST BE NOTED THAT MANY OF THE LESSER ARTERIAL ROADS ARE BEING DECOMMISSIONED.

ELEVATIONS EXTEND FROM 3000' TO APPROXIMATELY 6620'. IN THIS RANGE ALL THE DIVERSE CLASSES OF HERBAGE AND FLORA INDIGENOUS TO THE INTERIOR ARE ENCOUNTERED. CLIMAX OPEN DOUGLAS FIR FORESTS GIVE WAY TO LOWLAND SPRUCE, PINE AND CEDAR AND CONCOMITANT THICKETS OF ALDER, WILLOW, BUCKBRUSH AND RHODODENDRON. ROCK EXPOSURE IS BEST IN RECENT AND PRIOR CLEAR-CUTS AND AT HIGHER ELEVATIONS. OVERBURDEN IS EXTENSIVE IN MOST AREAS AS IS DENSE COVERINGS OF MOSSES AND LICHENS IN HEAVILY FORESTED SECTORS.

[1] SEE FIGURE 1: GENERAL LOCATION MAP


HEN 6
315716
HEN 8
315718
HEN 7
315717
HEN 5
315715
LEDGE 1
3N 6E
LEDGE 2
3S 6E
LEDGE 3
4N 4E
#206969
#206970
#206971
1:50,000
093A/12E
CARIBOO MINING DIVISION
CLINTON MINING DIVISION
ART 1 - 4 CLAIMS
LOCATION MAP FIG. 4
CARIBOO MD NTS: 92P
SCALE: 1:50,000



CELTIC 1 - 4 CLAIMS
LOCATION MAP FIG.5
CARIBOO MD NTS: 92/P & 93A
SCALE: 1:31680
Spanish Cr.
REDFERN
328556
206967
357617
357618
357616
BC 917
CARIBOO MINING DIVISION
KAMLOOPS MINING DIVISION

CLAIM STATUS

THE CELTIC CLAIMS[1] CONSIST OF FOUR TWO-POST UNITS. THESE ARE THE SOLE PROPERTY OF C J RIDLEY OF EAGLE CREEK, BC. NO RESTRICTIONS APPLY TO STAKING, EXPLORATION OR DEVELOPMENT IN THE AREA.

PERTINENT CLAIM DATA CAN BE VIEWED IN THE TABLES BELOW. WORK APPROVAL NUMBER **KAM 97 - 1500605 -695.**

CLAIM NAME DATE	RECORD NUMBER	EXPIRY DATE
CELTIC 1	357615	JULY 11, 1998
CELTIC 2	357616	"
CELTIC 3	357617	"
CELTIC 4	357618	"

THE ART CLAIMS[2] CONSIST OF FOUR TWO-POST UNITS. THESE ARE THE SOLE PROPERTY OF D W RIDLEY OF EAGLE CREEK, BC. NO RESTRICTIONS APPLY TO STAKING, EXPLORATION OR DEVELOPMENT IN THE AREA. PERTINENT CLAIM DATA CAN BE VIEWED IN THE TABLES BELOW. WORK APPROVAL NUMBER **KAM - 97 - 0300495 - 623.**

CLAIM NAME DATE	RECORD NUMBER	EXPIRY DATE
ART 1	359881	OCT. 21, 1998
ART 2	359882	"
ART 3	359883	"
ART 4	359884	"

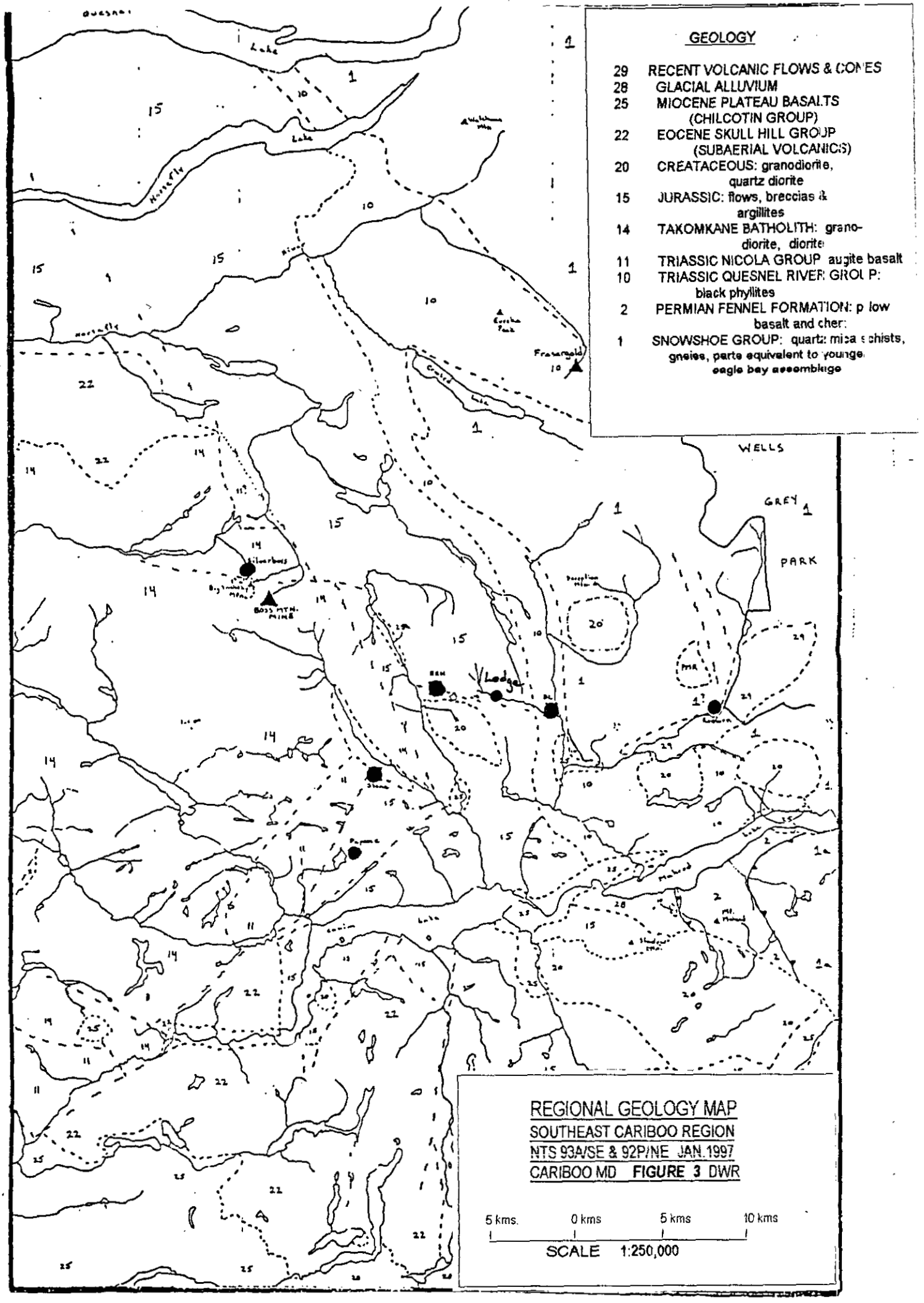
REGIONAL GEOLOGY[3]

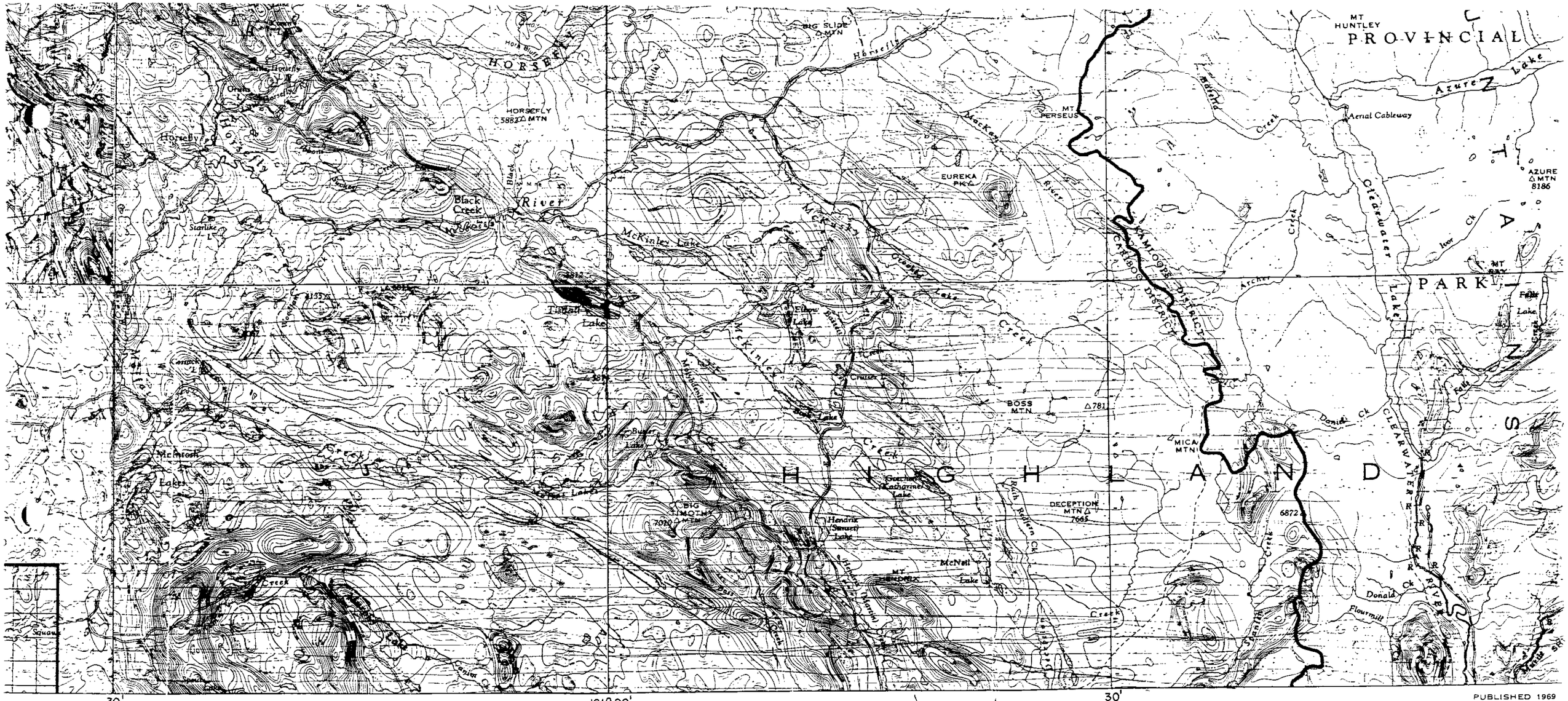
THE QUESNEL TROUGH OCCUPIES THE EASTERN PORTION OF THE INTERMONTANE BELT ALONG THE TROUGHS' TECTONIC BOUNDARY WITH THE OMINECA. TRIASSIC AND EARLY JURASSIC VOLCANIC ARC AND RELATED VOLCANICLASTIC ROCKS CHARACTERIZE QUESNELLIA AND OVERLIE A THIN, DISCONTINUOUS SLICE OF CROOKED AMPHIBOLITE.[4]

THE TRIASSIC-JURASSIC NICOLA ISLAND ARC-MARGINAL BASIN SEQUENCE IS THE PRINCIPAL ASSEMBLAGE OF QUESNELLIA. THESE ROCKS OCCUPY THE CENTRAL AND SOUTHERN PARTS OF THE NORTHWESTERLY TRENDING BELT AND OUTLINE THE QUESNEL MAGMATIC ARC. ALSO OF IMPORTANCE ARE THE MIDDLE TO LATE TRIASSIC SEDIMENTARY ROCKS WHICH ARE DOMINANTLY FINE-GRAINED AND FORM THE BASAL UNIT OF THE SEQUENCE.

THE NICOLA GROUP IS ASSIGNED TWO MAP UNITS WHICH BREAK DOWN INTO SEPARATE MORE DETAILED ROCK CLASSES. PLAGIOCLASE PYROXENE BASALT (2F, 2G) MAKES UP THE MOST RECENT UNIT FOLLOWED BY ANALCITE PYROXENE BASALT (2E); PYROXENE HORNBLENDE BASALT (2D); POLYLITHIC BRECCIA (2C); BASALT-BRECCIA, TUFF, SANDSTONE (2B); ALKALI OLIVINE

[1] SEE FIGURE 5: CELTIC 1-CLAIM LOCATION MAP
[2] SEE FIGURE 4: ART 1-4 CLAIM LOCATION MAP
[3] SEE FIGURE 3: REGIONAL GEOLOGY MAP
[4] CAMPBELL, 1971


GEOLOGY
29 RECENT VOLCANIC FLOWS & CONES
28 GLACIAL ALLUVIUM
25 MIOCENE PLATEAU BASALTS (CHILCOTIN GROUP)
22 EOCENE SKULL HILL GROUP (SUBAERIAL VOLCANICS)
20 CREATACEOUS: granodiorite, quartz diorite
15 JURASSIC: flows, breccias & argillites
14 TAKOMKANE BATHOLITH: granodiorite, diorite
11 TRIASSIC NICOLA GROUP augite basalt
10 TRIASSIC QUESNEL RIVER GROUP: black phyllites
2 PERMIAN FENNEL FORMATION: pillow basalt and chert
1 SNOWSHOE GROUP: quartz mica schists, gneiss, parts equivalent to younger eagle bay assemblage
WELLS
GREY
PARK
Lodge
REGIONAL GEOLOGY MAP
SOUTHEAST CARIBOO REGION
NTS 93A/SE & 92P/NE JAN.1997
CARIBOO MD FIGURE 3 DWR
5 kms. 0 kms 5 kms 10 kms
SCALE 1:250,000



QUESNEL LAKE MAP SHEET

MAP NUMBER 7721G FIG. 2

AEROMAGNETOMETER SURVEY

SCALE: 1:250,000

BASALT WACKE (2A); PYROXENE BASALT (1A) AND LASTLY SANDSTONE, SILTSTONE, SHALE AND PHYLLITE. (1)[1]

INTRUSIVE ROCKS ARE REPRESENTED BY THE EARLY JURASSIC TAKOMKANE BATHOLITH AND YOUNGER CRETACEOUS STOCKS AND DIKES. THE BATHOLITH (7) IS COMPOSED OF GREY, MEDIUM GRAINED EQUIGRANULAR TO PORPHYRYTIC QUARTZ DIORITE AND GRANODIORITE.

THE CRETACEOUS ROCKS (8) ARE MEDIUM TO COARSE-GRAINED, HORNBLENDE GRANODIORITE AND QUARTZ MONZONITE; LEUCOCRATIC QUARTZ MONZONITE AND ALASKITE.

AEROMAGNETOMETER SURVEY

A SERIES OF LOW MAGNETOMETER ANOMALIES TRENDING IN A MORE OR LESS EAST/WEST DIRECTION HAVE BEEN INTERPRETED AS OUTLINING A MAJOR STRUCTURAL TREND. MINERALIZATION IS KNOWN TO OCCUR FREQUENTLY ALONG THIS TREND ESPECIALLY IN THE PROJECT STUDY AREA.

THE AREA OF THE ART CLAIMS ARE COVERED BY A NORTHERLY TRENDING LOW WHICH IS REPEATED TO THE NORTH IN AN AREA WEST OF McNEIL LAKE. THIS LOW MAY BE A FURTHER INDICATION OF NORTHWEST FAULTING.

1997 WORK PROGRAM[2]

PROSPECTING, SILT AND SOIL SAMPLING IN CONJUNCTION WITH GEOLOGICAL MAPPING WERE METHODS EMPLOYED DURING THIS FIELD SEASON. TWENTY-EIGHT ROCKS, FORTY-FIVE SOILS AND ELEVEN SILTS WERE COLLECTED AND SENT FOR ANALYSIS. SIXTEEN ADDITIONAL SOILS WERE GATHERED BUT NOT ANALYZED.

IN KEEPING WITH THE REGIONAL CHARACTER OF THIS PROPOSAL MANY TRAVERSES WERE UNDERTAKEN IN SEVERAL DIFFERENT AREAS. IF GROUND COVERED IN THE FIRST SURVEY PROVED INFERTILE NO FURTHER EXPLORATION WAS CARRIED OUT. IF AN AREA DID REVEAL A CERTAIN AMOUNT OF POTENTIAL IT WAS GIVEN CLOSER INSPECTION.

ROAD RECONNAISSANCE SURVEYS WERE BEGUN IN EARLY MAY BOTH BY TRUCK AND ATV WHERE NECESSARY. AS A RESULT OF ONE OF THESE AN AREA ON THE ART CREEK ROAD WAS NOTED FOR FURTHER STUDY. GRANT APPROVAL WAS GIVEN ON **MAY 21, 1997** AND WORK BEGAN SHORTLY THEREAFTER.

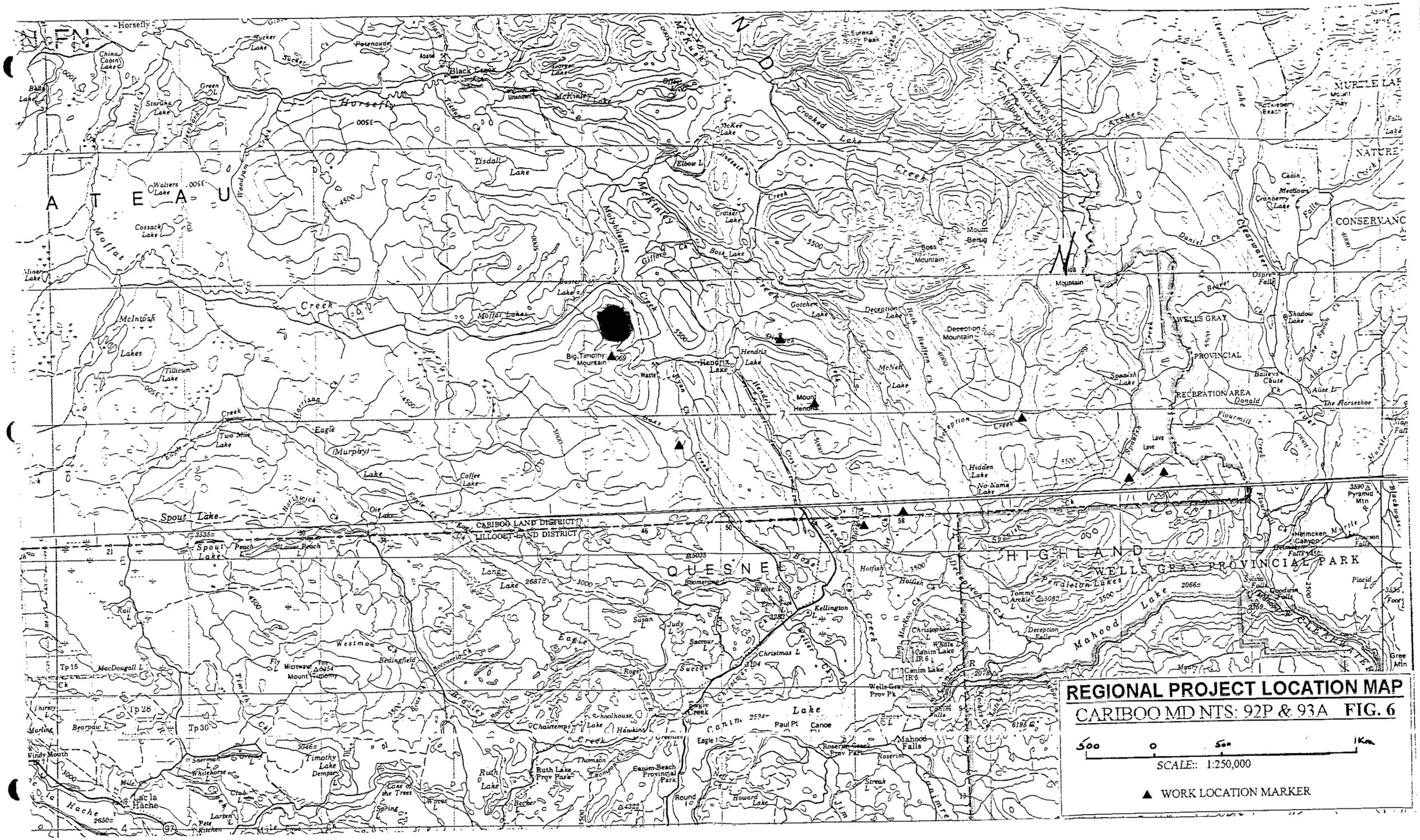
THREE AREAS SAW THE MAJORITY OF WORK, THE ART CREEK SHOWING (ART 1-4 CLAIMS) THE CELTIC SHOWING (CELTIC 1-4 CLAIMS) AND HENDRIX MOUNTAIN ENVIRONS.

THE BOSS CREEK PERIDOT SHOWING AND THE DECEPTION CREEK SKARN WERE MAPPED AND/OR SAMPLED. AREAS WHERE MINERAL POTENTIAL WAS DETERMINED SAW ADDITIONAL WORK.

ALL SAMPLE SITES ARE PLOTTED CLEARLY ON MAPS ACCOMPANYING THE REPORT.

ALL WORK WAS CARRIED OUT BY THE AUTHOR OR IN CONJUNCTION WITH MY PARTNER D. RIDLEY. A TOTAL OF FORTY-SEVEN DAYS WERE SPENT IN THE FIELD WITH THIRTY-ONE COMPLETED BY THE AUTHOR.

[1] BULLETIN 97, MAP 1 GEOLOGY OF THE CENTRAL QUESNEL BELT, BC
[2] SEE FIGURE 6: REGIONAL PROJECT LOCATION MAP



REGIONAL PROJECT LOCATION MAP

CARIBOO MD NTS: 92P & 93A **FIG. 6**

ART CREEK 1- 4 CLAIMS

I HAVE INCLUDED THE BURTT CREEK TRAVERSES IN WITH THE ART CREEK SECTION AS THE TWO AREAS BORDER ON EACH OTHER.[1] THE BURTT CREEK WORK WAS CURTAILED DUE TO CONFLICT WITH A COMPETING PARTY. HERB WAHL, A FELLOW PROSPECTOR HAS THE **HOTFISH** AND **KINGPIN** CLAIMS AND HAS BEEN DOING FOLLOW UP WORK ON A NUMBER OF NEW SHOWINGS. DURING A VISIT TO OUR HOME HE MENTIONED THAT HE WOULD BE CARRYING OUT FURTHER STAKING IN THE AREA. AS THE SAMPLES I TOOK WERE VERY CLOSE TO HIS PROPOSED STAKING IT WAS DETERMINED BY ME THAT THE RESULTS WOULD BE SHARED WITH HERB AND NO FURTHER WORK WOULD BE DONE CLOSE TO HIS CLAIMS.

TWO SAMPLES WERE TAKEN IN THE BURTT CREEK AREA.

97PAG:CR13 IS A GRAB OF SUBCROP RUBBLE FROM THE ROAD DITCH. IT IS A HIGHLY OXIDIZED AND LIMONITE RICH ALTERED INTRUSIVE. NO SIGNIFICANT VALUES WERE RETURNED FROM IT.

97PAG:CR14 IS A DIFFERENT MATTER. IT IS ALSO A GRAB OF SUBCROP RUBBLE ACROSS THE ROAD FROM CR13. IT IS A HYDROTHERMAL BRECCIA RICH IN CALCIUM AND PYRITE. IT IS ANOMALOUS IN **ZINC** AT **1055 ppm, SILVER** AT **8.6 ppm, STRONTIUM 1112 ppm, CADMIUM** WAS **143.9 ppm** AND **COPPER** WAS VERY SLIGHTLY ANOMALOUS AT **178 ppm.** NO OUTCROP WAS OBSERVED AND NO STRIKE OR DIP OBTAINABLE.

THE **ART CREEK** WORK RESULTED IN STAKING THE ART 1-4 CLAIMS BY MY PARTNER D. RIDLEY WHO PLANS TO ANNEX THEM TO THE NEARBY HEN-LEDGE-DL CLAIMS.

97PAG:CR3 IS A GRAB OF QUARTZ WITH PHYLLITE INCLUSIONS AND WAS ONLY VERY SLIGHTLY ANOMALOUS IN **GOLD** AT **15 ppb**. NO OTHER VALUES OF ANY INTEREST WERE RETURNED FROM IT.

97PAG:CR4 IS A GRAB OF HIGHLY GOSSANED AND MAGNETIC AUGITE PORPHYRY FROM AN OUTCROP STRIKING AT 024' AND DIPPING 72'NE. IT IS ANOMALOUS IN **COPPER** AT **274 ppm, STRONTIUM** AT **3041 ppm** AND **149 ppm CHROMIUM**.

97PAG:CR5 IS A GRAB OF MAFIC AUGITE PORPHYRY OUTCROP SHEAR ZONE. STRIKING AT 144' AND DIPPING 72'SW. IT IS FOLIATED AND PROPILLITICALLY ALTERED AND IS TALC-LIKE TO THE TOUCH. IT RETURNED INTERESTING RESULTS OF **660 ppm NICKEL, 795 ppm CHROMIUM** AND **88 ppb, GOLD**.

97PAG:CR6 IS HIGHLY MAFIC RESEMBLING A GABBRO. IT IS LIMONITE RICH AND MAGNETIC. **NICKEL** IS ANOMALOUS AT **943 ppm**, AS IS **MANGANESE** AT **1083 ppm** AND **CHROMIUM** AT **719 ppm, COBALT** IS ELEVATED AT **103 ppm**. THIS OUTCROP IS TRENDING AT 314' THOUGH NO DIP WAS POSSIBLE.

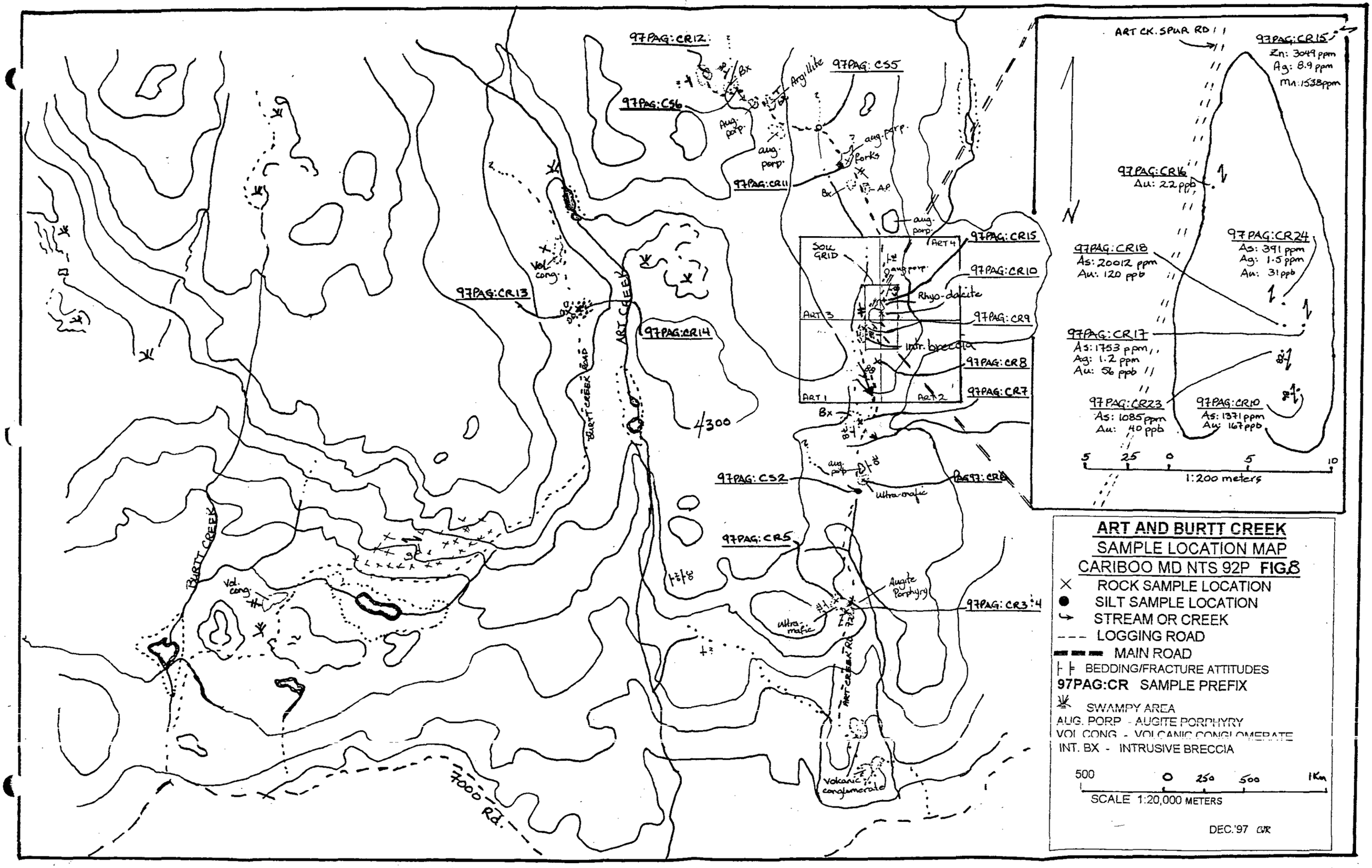
97PAG:CR7 IS A GRAB OF FAULT BRECCIA HIGHLY SILICIFIED, MAFIC AND CALCITE RICH. THE OUTCROP IT WAS TAKEN FROM STRIKES AT 352' AND DIPS 78'W. CR7 IS ONLY SLIGHTLY ANOMALOUS FOR **COPPER** AT **130 ppm** AND **CALCIUM** AT **1.35 %, VANADIUM** IS ELEVATED AT **138 ppm**.

97PAG:CR8 IS A 45 CENTIMETER WIDE SAMPLE OF ALTERED AUGITE PORPHYRY INTRUDED BY A .45 MILLIMETER WIDE QUARTZ VEIN. IT STRIKES AT 298' AND DIPS 88'NE. VALUES RETURNED FOR IT AT **316 ppm NICKEL, 330 ppm CHROMIUM, 148 ppm COPPER** AND **114 ppm ARSENIC**.

97PAG:CR9 IS APPROXIMATELY 350 METERS NORTHEAST OF CR8. IT IS FROM AN OUTCROP OF AUGITE PORPHYRY BRECCIA WITH EPIDOTE VEINING HIGHLY SILICIFIED AND NON-MAGNETIC. EPIDOTE STOCKWORK VEINING IS PRESENT IN MOST OF THE OUTCROP WHICH STRIKES AT 171' AND DIPS 90'. THOUGH LACKING IN ECONOMIC MINERALS IT ANALYSIS RESULTS SHOWED **269 ppm BARIUM, 144 ppm VANADIUM** AND **139 ppm STRONTIUM, CALCIUM** CONTENT IS **1.00%.**

97PAG:CR10 IS THE SAMPLE THAT FIRST SHOWED THE POTENTIAL OF THE GROUND. IT IS FROM A LARGE OUTCROP EXPOSURE OF RHYO-DACITE WHICH STRIKES AT 180' AND DIPS 86'W. A 0.5 MILLIMETER WIDE QUARTZ VEIN INTRUDES THE ROCK AND WAS INCLUDED IN THE SAMPLE. CLOSE TO THE VEIN THE ROCK MORE RESEMBLES A BRECCIA OF RHYO-DACITE WITH WELL

[1] SEE FIGURE 8: ART AND BURTT CREEK SAMPLE LOCATION MAP



ART AND BURTT CREEK
SAMPLE LOCATION MAP
CARIBOO MD NTS 92P FIG.8

× ROCK SAMPLE LOCATION
● SILT SAMPLE LOCATION
↳ STREAM OR CREEK
--- LOGGING ROAD
▬▬ MAIN ROAD
⊢⊢ BEDDING/FRACTURE ATTITUDES
97PAG:CR SAMPLE PREFIX
SWAMPY AREA
AUG. PORP - AUGITE PORPHYRY
VOL CONG - VOLCANIC CONGLOMERATE
INT. BX - INTRUSIVE BRECCIA

500 0 250 500 1Km
SCALE 1:20,000 METERS

DEC.'97 GR

FORMED EUHEDRAL PYRITE CRYSTALS AND SOME HEMATITE (?). VALUES FOR THIS SAMPLE WERE **1371 ppm ARSENIC** AND **167 ppb GOLD**. THE **IRON** CONTENT IS ALSO HIGH AT **6. 83 ppm**.

97PAG:CR11 IS TAKEN FROM A MAFIC, SILICIFIED AUGITE PORPHYRY SHEAR STRIKING AT 130' AND DIPPING 90'. IT PROVED TO BE HIGH IN MAFIC MINERALS WITH **NICKEL** CONTENT OF **170 ppm**, **CHROMIUM** IS **221 ppm**, **IRON 5.72%** AND **COPPER** AT **123 ppm**. **BARIUM** WAS ELEVATED AT **122 ppm**.

97PAG:CR12 IS A 30 CENTIMETER GRAB OF SILICIFIED, CALCAREOUS AUGITE PORPHYRY BRECCIA WITH HEAVY LIMONITE ALTERATION. THE OUTCROP TRENDS AT 334' NO DIP MEASUREMENT WAS POSSIBLE. THIS SAMPLE WAS ONLY SLIGHTLY ANOMALOUS FOR **COPPER** AT **161 ppm**, THOUGH **BARIUM, VANADIUM** AND **POTASSIUM** WERE ELEVATED AT **204 ppm, 178 ppm** AND **1.41%** RESPECTIVELY.

97PAG:CR15 LIES APPROXIMATELY 20 METERS NORTHEAST OF CR10. IT IS ALSO FROM AN OUTCROP OF RHYO-DACITE TRENDING 174'. SEVERAL SMALL, MILLIMETER WIDE VEINS OF SPECULAR HEMATITE CUT THE ROCK. VALUES RETURNED FOR THIS SAMPLE WERE **3049 ppm ZINC, 8.9 ppm SILVER, 121 ppm COPPER, 1538 ppm MANGANESE, 280 ppm STRONTIUM, 335.2 ppm CADMIUM, 126 ppm VANADIUM, 7.28% CALCIUM** AND A SNIFF OF **GOLD** AT **13 ppb**.

97PAG:CR16 IS FROM A CONTACT BETWEEN MAFIC AUGITE PORPHYRY AND RHYO-DACITE WHICH TRENDS AT 180'. PYRITE AND HEMATITE WERE NOTED. NO VALUES OF INTEREST WERE RETURNED FROM THIS SAMPLE.

97PAG:CR17 IS A 60 CENTIMETER CHIP OF BLEACHED, ALTERED AND BRECCIATED RHYO-DACITE APPROXIMATELY 5 METERS NORTH OF CR10. THE ROCK RESEMBLES FAULT GAUGE AND IS HEAVILY PYRITIZED WITH UP TO 10% VISIBLE SULPHIDES. THE ROCK STRIKES AT 182' AND DIPS 90', CALCITE IS PRESENT IN ALL FRACTURE FILLINGS. VALUES FOR THIS SAMPLE ARE NOTABLE AT **1753 ppm ARSENIC. 1.2 ppm SILVER** AND ELEVATED **GOLD** OF **56 ppb**.

97PAG:CR18 IS 64 CENTIMETER CHIP OF ALTERED RHYO-DACITE. IT IS CALCAREOUS, BRECCIATED AND HIGHLY PYRITIZED. IT RETURNED VERY HIGH **ARSENIC** VALUES OF **20012 ppm** AND ANOMALOUS **GOLD** OF **120 ppb**.

97PAG:CR19 IS A 72 CENTIMETER CHIP OF THE SHOWING. IT RESAMPLES PART OF CR10. MILLIMETER WIDE CALCITE VEINS CARRY EUHEDRAL PYRITE CRYSTALS INTRUDING THE RHYO-DACITE ROCK. VALUES FOR THIS SAMPLE WERE **1332 ppm ARSENIC, 87 ppb GOLD** AND **101 ppm BARIUM**.

97PAG:CR23 IS A 140 CENTIMETER WIDE SAMPLE OF BOTH THE HANGING WALL AND THE FOOTWALL OF CR18, PART OF WHICH WAS PREVIOUSLY UNDERWATER. HEAVY FRACTURING AND SHEARING HAS TAKEN PLACE IN THE RHYO-DACITE ROCKS. FINE-GRAINED DISSEMINATED PYRITE IS UBIQUITOUS THROUGHOUT THE ROCKS. THE ONLY VALUE OF ECONOMIC INTEREST RETURNED WAS FOR **ARSENIC** AT **1085 ppm, GOLD** REGISTERED AT **40 ppb**.

97PAG:CR24 IS 1.5 METERS SOUTH OF CR17. IT IS A 30 CENTIMETER CHIP OF SERICITE RICH ALTERED RHYOLLITE. AN INTENSE 05 CENTIMETER WIDE ZONE OF HEAVILY PYRITIZED MATERIAL INTRUDES THE ROCK WHICH STRIKES AT 190' AND DIPS AT 70'. **1.5 ppm SILVER** AND **391 ppm ARSENIC** ALONG WITH **31 ppb GOLD** WERE THE ONLY NOTABLE VALUES.

ART97:DR1 IS A SAMPLE TAKEN FROM A SERICITIC SHEAR APPROXIMATELY 20 METERS EAST OF THE BASELINE. HEMATITE-SPHALERITE AND PYRITE ARE FOUND IN A LIGHT GREY RHYODACITE WHICH HAS BEEN BLEACHED BY ALTERATION. THE ZONE IS APPROXIMATELY 40 CENTIMETERS WIDE AND SERICITE FILLS ALL THE FRACTURES. NO ECONOMIC VALUES WERE RETURNED ON THIS SAMPLE.

ART97:DR2 IS A FLOAT SAMPLE TAKEN 15 METERS NW OF DR1. DETERMINED TO BE A BANDED COBBLE OF QUARTZ-CALCITE WITH ALTERED HORNFELSED SEDIMENTS CONTAINING BRIGHT SILVERY PYRITE. **CALCIUM** VALUES FOR THIS SAMPLE WERE HIGHLY ANOMALOUS AT **17.62%**. **STRONTIUM** AND **CHROMIUM** WERE ELEVATED AT **774 ppm** AND **144 ppm** RESPECTIVELY.

ART97:DR3 IS SIMILAR IN CONTENT TO DR2 THOUGH WITH LESS SULPHIDE CONTENT. COMPOSED OF MAFIC VOLCANIC AND HORNFELSED LIGHT BLACK GREY SEDIMENTS IT HAS BEEN PROPYLITICALLY ALTERED AND INTRUDED BY RHYOLITE DYKELETS. **CALCIUM, BORON** AND **STRONTIUM** ARE ALL ELEVATED AT **10.28 %, 298 ppm** AND **359 ppm** APIECE.

N

L52N L51N L50+50N L50N L49+50N L49N L48N

26E

basaltic conglomerate

rhyo-dacite

ART97:DR3

rhyo-dacite

ART97:DR1

ART97DR2

rhyo-dacite

97PAG:CR15

BL25E

rhyolite float subcrop

propylitically altered mafic volcanic

97PAG:CR16

97PAG:CR10

97PAG:CR18

97PAG:CR17

97PAG: CR24

ART97:DR4

diorite

intrusive breccia

24E

50 0 25 50 100

1:1250 meters

ART 1 - 4 CLAIMS FIG.7

SOIL GRID LOCATION MAP

CARIBOO MD NTS: 92P

- SAMPLE LOCATION
- STREAM
- IP: ART 1&2; 3&4
- OUTCROP
- BEDDING/FRACTURE ATTITUDE
- ART CREEK SPUR ROAD

DEC.'97 GR

ART97:DR4 IS A GRAB OF HIGHLY FRACTURED AND LIMONITE STAINED ALTERED DIORITE(?). FINE-GRAINED PYRITE AND POSSIBLY ARSENOPYRITE WERE OBSERVED IN THE ROCK. THE SAMPLE WAS TAKEN FROM AN AREA OF RHYO-DACITE OUTCROP WHICH LIES NORTH AND SLIGHTLY WEST OF THE MAIN SHOWINGS APPROXIMATELY FORTY METERS. THIS SAMPLE RETURNED GOOD VALUES FOR GOLD AT **1950 ppb** AND ANOMALOUS VALUES FOR **COPPER** AT **210 ppm**. **ZINC** WAS SLIGHTLY ANOMALOUS AT **164 ppm** AND **VANADIUM** AT **305 ppm**.

OF THE OF THE SILT SAMPLES OBTAINED IN THE AREA TWO RETURNED SLIGHTLY INTERESTING VALUES.

97PAG:CS5 WAS JUST ANOMALOUS IN **SILVER** AT **1.7 ppm, MANGANESE** AT **1154 ppm, 123 ppm VANADIUM** AND **157 ppm BARIUM**.

97PAG:CS6 WAS ANOMALOUS IN **ZINC** AT **109 ppm, 989 ppm** FOR **MANGANESE** AND **113 ppm CHROMIUM**. BOTH THESE SAMPLES WERE TAKEN FROM STREAMS A KILOMETER AND A HALF NORTH AND UPSTREAM OF THE MAIN SHOWINGS.

ART CREEK SOIL GRID[1]

THE ART 1 - 4 LOCATION LINE WAS EMPLOYED AS A BASELINE IN SETTING UP THE SOIL GRID. LINES WERE RUN NORTH AND SOUTH OF THE INITIAL POST AND ONE HUNDRED METERS EAST AND WEST FROM IT. THREE LINES WERE RUN TO THE NORTH WITH AN INTERVAL OF 100 METERS BETWEEN LINE 51N AND LINE 52N WITH AND INTERVAL OF 50 METERS BETWEEN THE BASELINE AND LINE 51N. THE SAME METHOD WAS USED FOR THE LINES RUN TO THE SOUTH OF THE IP. A TOTAL OF 51 SAMPLES WERE COLLECTED IN KRAFT SOIL BAGS, AIR DRIED THEN SENT TO ACME ANALYTICAL LABS IN VANCOUVER. THERE THEY WERE ANALYZED FOR 30 ELEMENT ICP.[2]

RESULTS WERE PLOTTED ON 1:1250 SCALE MAPS AND VALUES FOR COPPER, ZINC, ARSENIC AND BARIUM WERE PLOTTED ON ONE MAP, WHILE VALUES FOR MANGANESE, IRON, CALCIUM AND MAGNESIUM WERE PLOTTED ON ANOTHER.[3]

THESE VALUES WERE ALSO MANIPULATED USING MSEXCEL AND THE CHARTS RENDERED ARE INCLUDED IN THIS REPORT.

OVERALL RESULTS OF THE SOIL PROGRAM WERE SUBTLE. IN THIS INSTANCE MANGANESE WAS USED AS A PATHFINDER MINERAL AND RESULTS FROM THIS MINERAL WERE INCISIVE. MANGANESE IS ANOMALOUS OR ELEVATED FOR OVER SIXTY PERCENT OF ALL SAMPLES.

SIGNIFICANT RESULTS ARE SEEN AT L49N:25+50E; 24+25 - 50E: L49+50N:25+ 25E; AND 24+25 - 75E: *L50+50N:24E TO 25+50E: L51N:24+ 50E: 25+50E: THE HIGHEST* **MANGANESE** RECORDED WAS ON L50+50N: 24+50E AT **20037 ppm.**

MULTI-ELEMENT ANOMALIES OCCUR ON SEVERAL LINES. MOST PREDOMINANT IS THE ANOMALY BETWEEN L49N AND L50N. BEGINNING AT L50N:24E AND EXTENDING TO L50N:24+50E IT TRENDS IN A SOUTHEASTERLY DIRECTION TO L49N:24+25 - 24+60E. VALUES FOR MANGANESE RANGE FORM **254 ppm** TO **1259 ppm**, IRON RICH THE ANOMALY ALSO CONTAINS THE HIGHEST **COPPER** AT **210 ppm**. ZINC VALUES RANGE FROM **69 ppm** TO **154 ppm**. **BARIUM** AND **CALCIUM** MERIT AN MENTION AT RESPECTIVE HIGHS OF **576 ppm** AND **1.55%**. THIS ANOMALY HAS AN OVERALL TREND OF NORTHWEST/SOUTHEAST.

A SINGLE-ELEMENT NON-CONFORMITY IS SEEN WITH THE ARSENIC NUMBERS ON L50+50N:24+ 50E - 25+50E, AND EXTENDING L50N BETWEEN 24+60E AND 24+80E. THIS ONE HAS AN EAST/WEST TREND AND **INCLUDES** THE AREA OF THE **MAIN SHOWING**. A VALUE OF **338 ppm ARSENIC** WAS OBTAINED AT L50+50N:24+75E IT WAS THE HIGHEST RECORDED IN A SOIL.

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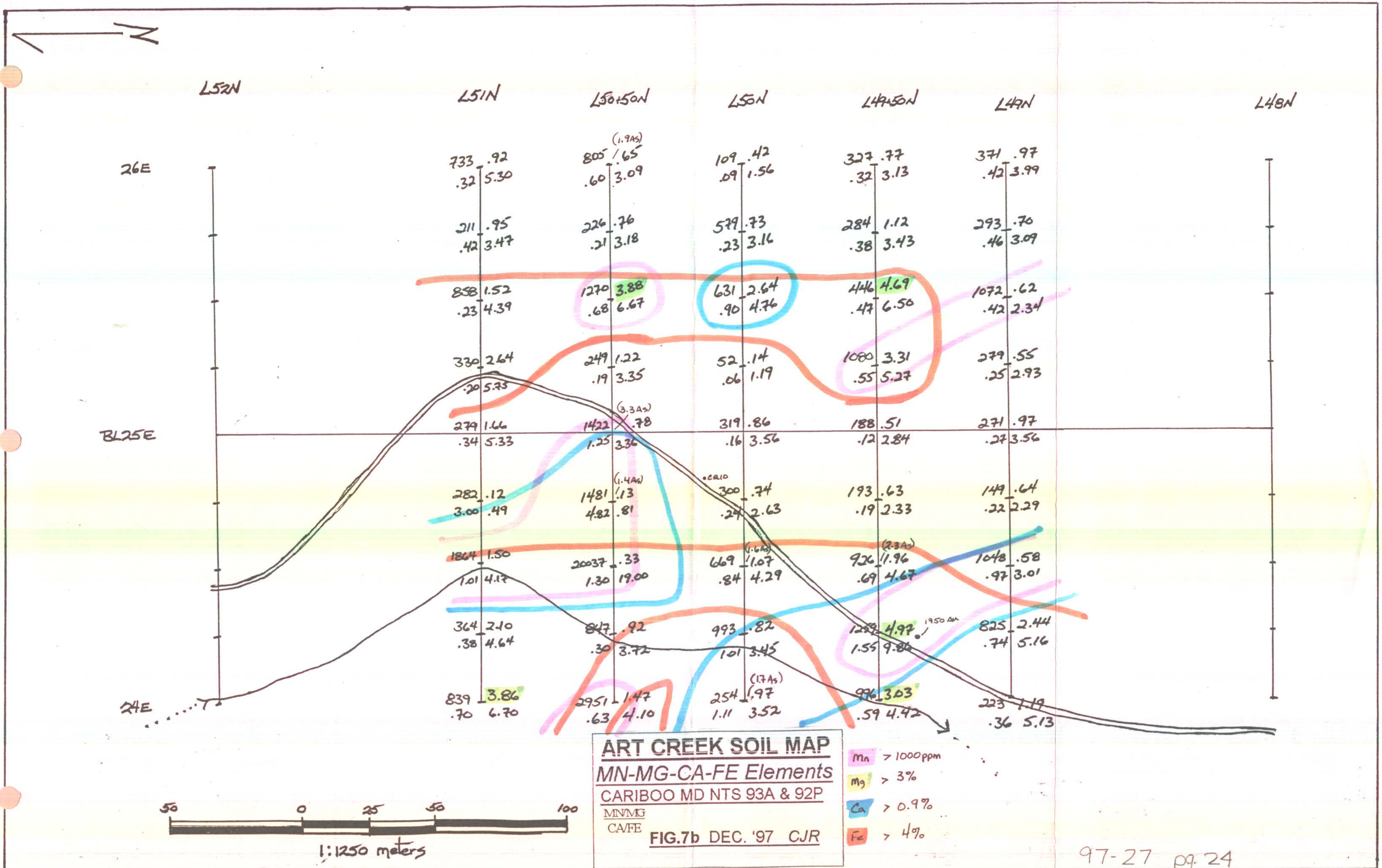
[1] SEE FIGURE 7: ART 1-4 CLAIMS SOIL GRID LOCATION MAP
[2] SEE APPENDIX FOR LABORATORY SHEETS
[3] SEE FIGURES: 7a AND 7b FOR SOIL ELEMENT MAPS


L52N
L51N
L50+50N
L50N
L49+50N
L49N
L48N
26E
BL25E
24E
ART CREEK SOIL MAP
MN-MG-CA-FE Elements
CARIBOO MD NTS 93A & 92P
MN/MG
CA/FE
FIG.7b DEC. '97 CJR
Mn > 1000ppm
Mg > 3%
Ca > 0.9%
Fe > 4%
50 0 25 50 100
1:1250 meters

N

L52N L51N L50+50N L50N L49+50N L49N L48N

26E

BL25E

24E

	L51N	L50+50N	L50N	L49+50N	L49N
	76 24 / 99 157	58 16 / 78 174	16 4 / 34 57	25 12 / 104 141	31 18 / 112 168
	27 14 / 83 131	18 13 / 79 86	29 13 / 97 179	48 15 / 98 120	25 3 / 72 96
	74 28 / 154 257	128 62 / 84 312	114 13 / 94 124	44 40 / 75 68	32 7 / 80 154
	39 44 / 90 167	28 150 / 59 110	9 26 / 8 53	91 10 / 103 151	28 16 / 73 142
	40 20 / 125 206	44 98 / 94 229	31 12 / 120 118	19 23 / 61 91	22 12 / 104 105
	16 4 / 20 26	48 54 / 18 214	×CR10 28 56 / 78 108	20 11 / 68 143	12 8 / 61 117
	52 38 / 114 193	25 338 / 111 1285	76 38 / 124 270	60 34 / 154 262	173 20 / 107 250
	25 6 / 83 162	51 19 / 95 170	82 20 / 90 214	1950 Am 210 6 / 91 570	68 5 / 115 313
	33 8 / 96 212	71 21 / 126 324	129 10 / 69 289	71 25 / 116 157	28 21 / 137 218

50 0 25 50 100

1:1250 meters

ART CREEK SOIL MAP

CU-AS-ZN-BA Elements

CARIBOO MD NTS: 93A & 92P

CU/AS
ZN/BA

FIG.7a DEC. '97 CJR

Cu > 70 ppm
As > 50 ppm
Ba > 200 ppm
Zn > 150 ppm

97-27 pg. 25

A SINGLE - ELEMENT COPPER ANOMALY TRENDS N/S. FROM L51N TO L50N: 24+50E. TWO SPOT ANOMALIES ARE SEEN AT L49+50N: 25+25E AND L51N:26E. AT L49+50N: 24+25E, A **COPPER** VALUE OF **210 ppm** WAS RETURNED. CO-INCIDENTALLY A ROCK SAMPLE TAKEN APPROXIMATELY 10 METERS TO THE SOUTH, **ART97:DR4,** RETURNED VALUES OF **1950 ppb GOLD** AND **210 ppm COPPER.**

BARIUM FORMS A LARGE OPEN ENDED ANOMALY BETWEEN L51N:25E - 24+60E AND EXTENDING THROUGH L50+50N:25E - 24+75E, L50N:24+75E AND OPEN TO THE WEST, L49+50N:24+25E -24E AND L49N:24+50E AND OPEN TO THE WEST AND SOUTH. THIS ANOMALY IS ALSO OPEN TO THE NORTH. ON LINES 51N AND 50+50N AT 25+50E BARIUM FORMS A SMALL ANOMALY ALONG WITH COPPER, ARSENIC, MANGANESE AND IRON. THE HIGHEST VALUE FOR **BARIUM, 1285 ppm** WAS RETURNED FROM A SOIL TAKEN AT L50+50N:24+50E. THE SAMPLE IS DOWNSLOPE OF THE MAIN SHOWINGS, APPROXIMATELY 50 METERS.

A FINAL MENTION SHOULD BE MADE IN RESPECT TO **SILVER**. THE HIGHEST VALUE RETURNED WAS **3.3 ppm** ON L50+50N:BL25E. A SLIGHT TREND CAN BE SEEN TO THE HIGHEST VALUES BEGINNING IN THE NORTH WITH THE AFOREMENTIONED SAMPLE AND TRENDING IN A SOUTHWEST MANNER TO L50N:24+50E WHERE **1.6 ppm** IS REPORTED, THEN TO L49+50N:24+50E WHERE THE SECOND HIGHEST VALUE OF **2.3 ppm** IS SEEN. TWO SPOT ANOMALIES CAN BE SEEN ON L50+50N AND L50N, BOTH AT 24E

SILT SAMPLES IN THE AREA GENERALLY RETURNED INSUFFICIENT DATA TO SUPPORT INTERPRETATION. MAGNESIUM IS ANOMALOUS FOR ALL THE SILTS, HOWEVER ONLY TWO SAMPLES WERE ANOMALOUS FOR OTHER ELEMENTS.

97PAG: CS2 IS HIGHLY ANOMALOUS FOR **MAGNESIUM** AT **1699 ppm** AND BARELY ANOMALOUS FOR **BARIUM** AT **185 ppm**. **97PAG:CS 5** IS HIGHLY ANOMALOUS FOR **MAGNESIUM AT 1154 ppm**, AND IS VARIABLY ANOMALOUS FOR **VANADIUM** AND **BARIUM** AT **123 ppm** AND **157 ppm**.

97PAG: CS3 TAKEN SOUTH OF THE MAIN SHOWING APPROXIMATELY 700 METERS RETURNED **4710** ppm **MAGNESIUM**, A **ZINC** VALUE OF **127 ppm, 124 ppm NICKEL, 152 ppm CHROMIUM** AND ELEVATED **BARIUM**. **97PAG:CS6** TAKEN OVER A KILOMETER NORTH AND WEST OF THE MAIN SHOWING IS SLIGHTLY ANOMALOUS IN **ZINC** AT **109 ppm, CHROMIUM** AT **113 ppm, MAGNESIUM** IS LOWEST IN THIS SAMPLE AT **989 ppm** AND AGAIN **BARIUM** IS ELEVATED.

CELTIC CLAIMS[1]

THE CELTIC 1-4 CLAIMS WERE STAKED TO COVER AN EXPOSURE OF STAUROLITE/ANDALUSITE OCCURRING IN THE SCHIST ROCKS OF THE SNOWSHOE FORMATION.

SEVERAL TRAVERSES WERE RUN IN THE AREA. MAPPING AS WELL AS THE COLLECTION OF HAND SPECIMENS WAS CARRIED OUT WHERE OUTCROP EXPOSURE COULD BE FOUND. AS YET NO OTHER EXPOSURES OF THE STAUROLITE/ANDALUSITE AND/OR GARNET HAVE BEEN FOUND. HOWEVER CLEAR-CUTS PLANNED FOR THE NEXT FEW YEARS MAY AID IN REVEALING FURTHER MATERIAL.

CRYSTALS OF BOTH MINERALS OCCUR IN GREAT QUANTITIES IN THE AREA OF THE CLAIMS WELL-FORMED CRYSTALS CAN BE FOUND BOTH IN FLOAT AND IN OUTCROP, ANDALUSITE CRYSTALS UP TO 5 CENTIMETERS IN LENGTH AND WELL-FORMED STAUROLITE CROSSES ARE ABUNDANT. THOUGH NOT AS COMMON, GARNET OF A DEEP ROSE HUE CAN ALSO BE FOUND.

SURFICIAL ANDALUSITE CYRSTALS ARE WELL WEATHERED SUBTRANSLUCENT TO OPAQUE WITH UNEVEN SUBCONCHOIDAL FRACTURING OF THE PRISMATIC ORTHOHOMBIC CRYSTALS. THE COLOR VARIES FROM WHITISH TO ROSEY-RED.

"ANDALUSITE IS A MEMBER OF THE SILLIMANITE GROUP OF MINERALS CONSISTING OF ANDALUSITE, KYANITE AND SILLIMANITE.

[redacted]

1 See Fig. 9: Celtic claims Work Location

CELTIC 1-4 CLAIMS FIG. 9

CARIBOO MD NTS: 93A/92P

WORK LOCATION MAP

- BEDDING/FRACTURE ATTITUDES
- IP/FP CELTIC 1&2, 3&4
- STREAM OR CREEK
- LOGGING ROAD
- OUTCROP
- SWAMPY AREA
- SUBCROP/BOULDER RUBBLE
- CLEARCUT BOUNDARY

DEC.'97 G/R

LAVA

4600

1300 ROAD

N

CELTIC 1-4 2: POST CLAIMS

4000

staurolite/ Andalusite Garnet

schist phyllite

phyllite

argillite/ phyllite

4500

5m x 8m S.A. Boulder

phyllite

Qtz./Mica Schist Staurolite/ Garnet Andalusite Boulder Rubble

5000

Staurolite/ Andalusite Boulders

Rhyolite sill

Qtz. mica schist

Schist

Schist

Qtz./Mica Schist

4500

Volcanic Tuff

phyllite

Schist

Qtz.

Qtz./Mica Schist

0 500 1km 1.5km 2km

1:20,000 meters

Staurolite /Andalusite Crystals

IT OCCURS IN METAMORPHOSED ROCKS OF CLAY-LIKE COMPOSITION, AS IN THE ANDALUSITE-HORNFELSES IN THERMAL AUREOLES(CONTACT METAMORPHISM), FORMED UNDER CONDITIONS OF HIGH TEMPERATURES AND LOW STRESS, AND IN REGIONAL METAMORPHIC ROCKS, SUCH AS THE ANDALUSITE-SCHISTS.

MOST OF THE ANDALUSITE OCCURS AS THE VARIETY CHIASTOLITE. THE CRYSTALS WHEN CUT OR BROKEN ACROSS EXHIBIT DEFINITE CRUCIFORM GROWTH PATTERNS WHICH ARE DUE TO IMPURITIES ENCLOSED IN THE CRYSTALS DURING THEIR FORMATION.

ALTHOUGH THE FIRST USE OF ANDALUSITE WAS IN THE MANUFACTURE OF CERAMIC SPARK PLUGS, THE BULK OF THE ANDALUSITE PRODUCTION IS NOW USED IN THE REFRACTORIES INDUSTRY, WITH RELATIVELY SMALL QUANTITIES USED IN OTHER APPLICATIONS SUCH AS CERAMICS, ABRASIVES, AND FILLER MATERIALS. ANDALUSITE IS CLOSELY RELATED TO DEVELOPMENTS IN THE STEEL INDUSTRY. SOME APPLICATIONS WHERE ANDALUSITE REFRACTORIES AND CERAMICS ARE USED INCLUDE: STOVE BRICKS AND CHECKERS; DIRECT REDUCTION KILNS; BLAST FURNACE STACK AND RUNNERS; TORPEDO, TRANSFER, AND CASTING LADLES; HOT METAL MIXERS; AND INDUCTION FURNACES IN THE STEEL INDUSTRY.

SOUTH AFRICA HOLDS THE LARGEST KNOWN MINABLE ANDALUSITE DEPOSITS IN THE WORLD, ESTIMATED AT SOME 70 Mt OF KNOWN IN SITU RESERVES, OF WHICH APPROXIMATELY 35 Mt ARE ECONOMICALLY RECOVERABLE USING CURRENT METHODS (HAMMERBECK, 1986).

MORE THAN HALF THE ANDALUSITE PRODUCED IN SOUTH AFRICA IS EXPORTED TO OTHER COUNTRIES. IT IS THEREFORE VERY CLEAR THAT TRANSPORT IS A VERY BIG COST COMPONENT IN THE PRICE OF ANDALUSITE.

STAUROLITE AND ALMANDINE GARNET FREQUENTLY ACCOMPANY THE OCCURRENCE OF ANDALUSITE AND, WHERE PRESENT IN COMMERCIAL QUANTITIES, THEY ARE RECOVERED AND SOLD AS ABRASIVE AGGREGATES."[2]

DARK BROWN TRANSLUCENT TO TRANSPARENT STAUROLITE CRYSTALS PRISMATIC AND PSEUDO-ORTHORHOMBIC IN SHAPE COMMONLY INTERGROWN AT RIGHT ANGLES (TWINNED)AND FORMING A CROSS OCCUR IN VARIOUS SIZES. CRYSTALS OF SEVERAL MILLIMETERS IN LENGTH ARE COMMON.

ALMANDINE GARNET IS MOSTLY SEEN AS DODECAHEDRAL CRYSTALS RANGING IN SIZE FROM MICROSCOPIC TO FIVE MILLIMETERS IN DIAMETER. IT GENERALLY IS FOUND SEPARATELY FROM STAUROLITE AND ANDALUSITE THOUGH IN SIMILAR ROCK.

THESE MINERALS ARE FOUND IN GREY-BLACK QUARTZ-MICA-BIOTITE SCHIST WITH NUMEROUS QUARTZ VEINS AND LENSES. THE ROCK IS WELL FOLIATED AND BANDED IN APPEARANCE.

NONE OF THE MINERALS IS BELIEVED TO BE IN SUFFICIENT QUANTITY AT THIS TIME TO PROVE OF ECONOMIC VALUE. HOWEVER IT IS SUFFICIENT FOR PURPOSES OF ROCK COLLECTION AND STUDY. IT IS THIS LATTER ROUTE THAT THE AUTHOR IS EXPLORING CURRENTLY. STAUROLITE ESPECIALLY IN CROSS FORM DOES NOT OCCUR FREQUENTLY IN NORTH AMERICA THUS MAKING THE SITE A VIABLE COLLECTION AREA.

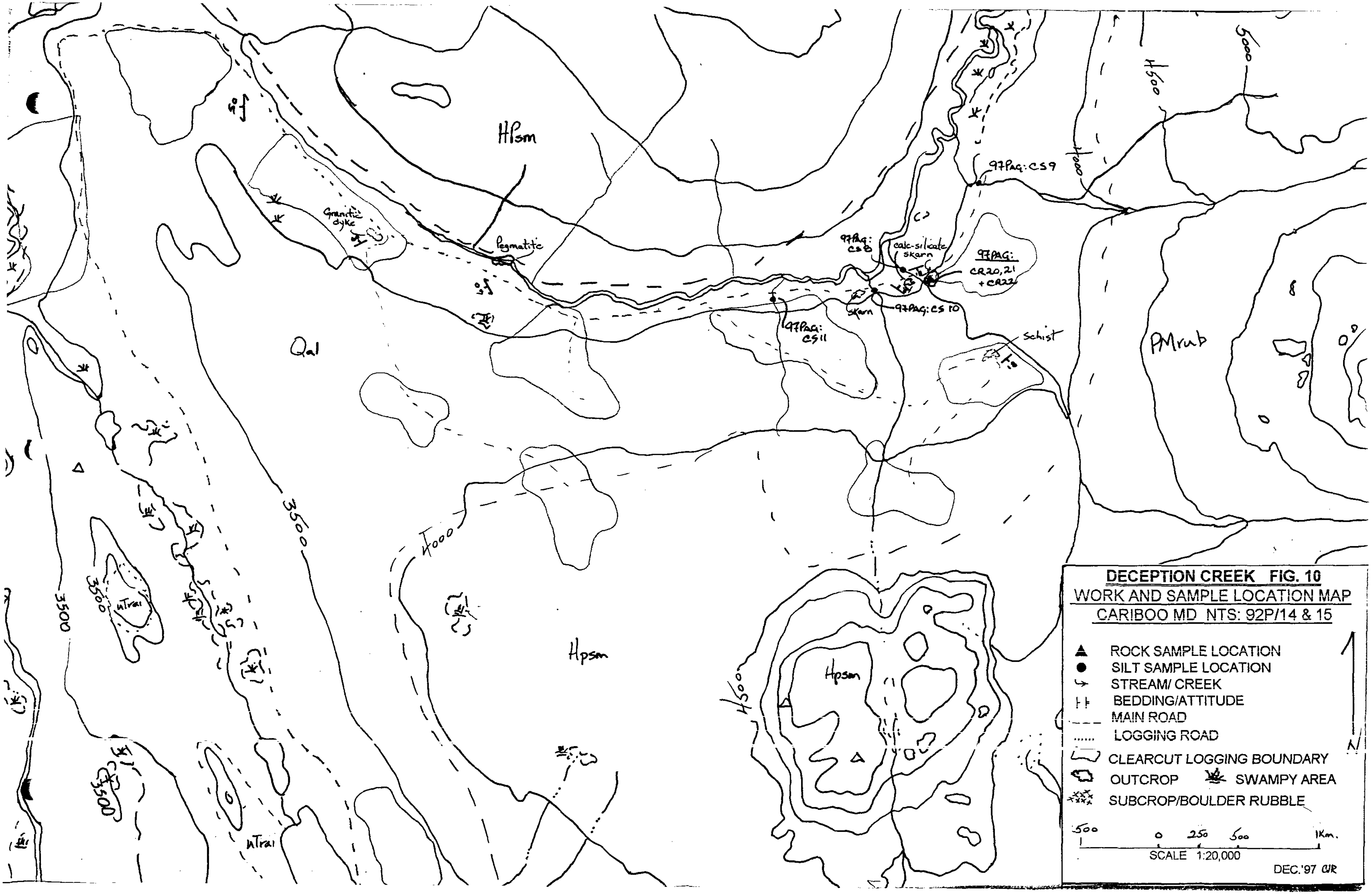
SPECIMENS HAVE BEEN FORWARDED TO CERTAIN AGENCIES SPECIALIZING IN ROCK COLLECTIONS AND RETAIL MARKET SALES. COMMERCIAL COLLECTING BY THE PUBLIC WILL BE OFFERED AS PART OF A BUSINESS VENTURE PRESENTLY BEING STUDIED BY THE AUTHOR.

DECEPTION CREEK SURVEY AREA[3]

SEGMENTS OF THE DECEPTION CREEK AREA HAD SEEN PRIOR WORK IN THE FORM OF SILT AND ROCK SAMPLING DURING A REGIONAL PROGRAM FOR PIONEER METALS IN THE EARLY 1990'S. NO TARGETS WERE DEFINED AS A RESULT OF THIS WORK. HOWEVER PEGMATITE BODIES AND SUBCROP RUBBLE WERE IDENTIFIED AND NOTED AT THE TIME.

[redacted]

[2] QUOTED FROM 'INDUSTRIAL MINERALS AND ROCKS, 6th EDITION, DONALD D. CARR (EDITOR), 1994
[3] SEE FIGURE 10: DECEPTION CREEK WORK AND SAMPLE LOCATION MAP



DECEPTION CREEK FIG. 10
WORK AND SAMPLE LOCATION MAP
CARIBOO MD NTS: 92P/14 & 15
ROCK SAMPLE LOCATION
SILT SAMPLE LOCATION
STREAM/ CREEK
BEDDING/ATTITUDE
MAIN ROAD
LOGGING ROAD
CLEARCUT LOGGING BOUNDARY
OUTCROP
SWAMPY AREA
SUBCROP/BOULDER RUBBLE
SCALE 1:20,000
DEC.'97 CJR
Hpsm
Qal
PMrub
Hpsm
Hpsm
uTrai
uTrai
Pegmatite
Granitic dyke
calc-silicate skarn
skarn
Schist
97PAG: CS9
97PAG: CS 10
97PAG: CS11
97PAG: CS8
97PAG: CR20,21 + CR22
3500
4000
4500
5000

AS A FURTHER RESULT OF TALKS WITH NOTED INDUSTRIAL GEOLOGIST GEORGE SIMANDL CONCERNING LIKELY OCCURRENCES OF PRECIOUS GEMS IN PEGMATITE'S OF SIMILAR ENVIRONMENTS, TWO DAYS WERE SPENT MAPPING OUTCROP, AND SAMPLING STREAMS AND MINERALIZED ROCK.

THE AREA LIES NEAR THE CONTACT OF THE QUESNEL AND BARKERVILLE TERRANES, THE BOUNDARY OF WHICH IS MARKED BY THE EUREKEA THRUST COMPRISED OF MAFIC TO ULTRA-MAFIC METAVOLCANIC ROCKS. IN 1982 THE JEZEBLE CLAIMS WERE STAKED TO EXAMINE THE AREA. THE WORK REVEALED THE PRESENCE OF AN UNMAPPED GRANITIC INTRUSIVE. THE REPORT STATES THAT THE METASEDIMENT PACKAGE VARYS IN COMPOSITION FROM BEING QUARTZ-RICH IN THE WEST THROUGH AN ALLUMINA-RICH PHASE TO SLIGHTLY CALCAREOUS SEDIMENTS IN THE EAST. THE SEDIMENTS ARE STRATIGRAPHICALLY LOWER THAN THE QUARTZ-RICH ONES, WHICH SUGGESTS A REGRESSIVE SEQUENCE. IN LIGHT OF THESE FINDINGS THERE IS A REAL POSSIBLITY OF LIMESTONE BEDS EXISTING LOWER IN THE SEQUENCE. THESE BEDS COULD HOST SKARN DEPOSITS (AR#10641)

DURING PRELIMINARY PROSPECTING IT WAS NOTED THAT CERTAIN ROCKS DISPLAYED SKARN ALTERATION. OUTCROPS OF CALC-SILICATE WELL-MINERALIZED WITH PYRRHOTITE, PYRITE, GARNET AND DIOPSIDE WERE SAMPLED. SPECIMENS OF ACTINOLITE CONTAINING PYROXENE AND GARNET CRYSTALS WERE ALSO TAKEN. SILICIFIED RHYOLLITE OUTCROP MINERALIZED WITH PYRITE IN EUDHEDRAL CRYSTALS WAS MAPPED AND SAMPLED.

97PAG:CR20 IS A SAMPLE OF LIMEY BIOTITE SCHIST CONTAINING PYRITE, PYRHHOTITE AND GARNET STRIKING 253' AND DIPPING 18' SOUTH. THIS SAMPLE RESULTED IN ELEVATED STRONTIUM AND CALCIUM NUMBERS.

97PAG:CR21 IS A SAMPLE OF SILICEOUS FELSIC INTRUSIVE WITH PYRITE WELL DISSEMINATED THROUGHOUT. THE OUTCROP TRENDS 010' WITH SLIGHT WESTERLY DIP. NO ECONOMIC VALUES WERE YIELDED BY THIS SAMPLE.

97PAG:CR22 IS FROM A SILICA RICH INTRUSIVE DYKE STRIKING 172', DIPPING 50 E. PYRITE WAS PRESENT IN MINOR QUANTITIES BUT NO VALUES OF INTEREST WERE RETURNED.

FREE-FLOWING CREEKS WERE SILTED **97PAG:CS8, 9 & 10** WERE SLIGHTLY ELEVATED IN NICKEL BUT NOTICEABLY LACKING IN OTHER ECONOMIC MINERALS.

THOUGH PEGMATITE'S WERE OBSERVED THEY WERE BARREN OF ANY GEM MATERIAL. ROCKS IN THE AREA MANIFEST A DISTINCT EAST/WEST TREND WITH A STRONG WESTERLY DIP.

BOSS CREEK SURVEY AREA[1]

WORK IN THE BOSS CREEK AREA PRIMARILY CONSISTED OF MAPPING AND HAND SAMPLE COLLECTION. THIS AREA WAS GIVEN ATTENTION IN ORDER TO DETERMINE IF THE PROPOSED MINERALIZED FAULT TREND APPARENT ON THE HEN PROPERTY INDEED EXISTED. DURING PROSPECTING AN OUTCROP OF PERIDOT SIMILAR IN CONTENT AND MAKE-UP TO THE OUTCROPS ON TAKOMKANE MOUNTAIN TO THE NORTHWEST WAS IDENTIFIED AND MAPPED.

PERIDOT OR 'EVENING EMERALD', A LIMEY-GREEN TRANSPARENT FORM OF CHRYSOLITE, IS FOUND IN TERTIARY VOLCANIC ROCKS FORMING THE SUMMIT OF TAKOMKANE MOUNTAIN. THE REMARKABLE FEATURE OF THE FIND IS THE QUANTITY OF VOLCANIC BOMBS OCCURRING IN THE AREA. THESE BOMBS CONTAIN THE CHRYSOLITE VARYING CONSIDERABLY IN CHEMICAL COMPOSITION. THE MOST COMMON FORM IS DARK BOTTLE - GREEN IN COLOR. PERIDOT OCCURS IN SOME OF THE BOMBS AS SINGLE CRYSTALS OR MASSES OF CRYSTALS.

[1] SEE FIGURE 11: BOSS CREEK WORK AND SAMPLE LOCATION MAP

Granodiorite

Diorite

mafic diorite

Diorite

Diorite

BRIDGE

Km Post 620-17

Tertiary Basalt Flow w/ Peridot/ Olivine

5000

5500

6000

4600

N

BOSS CREEK WORK AND SAMPLE LOCATION MAP FIG. 11

CARIBOO MD NTS: 92P/14 DECEMBER, 1997 CJR

500 0 500 1Km. 250 500 2Km.

SCALE 1:20,000

CLEARCUT LOGGING BOUNDARY

OUTCROP

SWAMPY AREA

SUBCROP/BOULDER RUBBLE

ROCK SAMPLE LOCATION

SILT SAMPLE LOCATION

BEDDING/ATTITUDE

MAIN ROAD

LOGGING ROAD

STREAM/ CREEK

THE PERIDOT/OLIVINE OBSERVED HERE IS CONTAINED IN FLOWS. NO BOMBS WERE YET NOTED IN THE AREA.

GRANODIORITES AND DIORITES OF THE TAKOMKANE BATHOLITH AND JURASSIC VOLCANICS PREDOMINATE THE AREA. K-SPAR AND EPIDOTE ALTERATION IS PERVASIVE IN THE FELSIC PYROCLASTIC ROCKS. PREVALENT TREND TO THE ROCKS IS 238'. IT COULD NOT BE CONCLUSIVELY DETERMINED WHETHER OR NOT THE PREVIOUSLY MENTIONED FAULT TREND EXISTS IN THE AREA.

NO SAMPLES WERE TAKEN HERE FOR ANALYSIS AS NO MINERALIZED OUTCROP WAS PERCEIVED.

HENDRIX MOUNTAIN AND DIETRICH CREEK SURVEY AREAS[1]

SEVERAL DAYS WERE SPENT IN CLOSE PROXIMITY TO THE HEN-LEDGE-DL CLAIM BOUNDARIES IN ORDER TO TRACE ANY MINERALIZATION FOUND TO BE TRENDING OFF THE CLAIMS.

97PAG:CR1 IS FROM A CLEAR-CUT TO THE WEST OF THE 6000RD AND NORTH OF THE 6300RD. IT IS A SAMPLE OF AUGITE PORPHYRY THAT HAS BEEN HORNFELSED AND SILICA ENRICHED. **COPPER** IN THIS SAMPLE WAS SLIGHTLY ELEVATED AT **107 ppm**.(CLEAR-CUT #1)

97PAG:CR2 IS TAKEN FROM THE SAME CLEAR-CUT. IT IS OF A VOLCANIC TUFF WITH MINOR PYRITE AND PYRRHOTITE. NO VALUES OF ANY INTEREST WERE RETURNED FOR THIS SAMPLE.

BOTH SAMPLES WERE FROM FLOAT AND THE ONLY OUTCROP FOUND WAS AUGITE PORPHYRY THAT STRIKES 218' AND DIPS 68' TO THE NW. TILL OF TERTIARY ORIGIN DOMINATES THE TERRAIN.

SEVERAL TRAVERSES WERE RUN IN CLEAR-CUTS TO THE NORTH AND SOUTH OF THE CLAIM BOUNDARY AND HAND SAMPLES WERE COLLECTED WITH ANY OUTCROP BEING MAPPED. MINERALIZATION AND/OR ALTERATION WAS SCANT IN THE SECTORS COVERED AND NO SAMPLES WERE OBTAINED FOR ANALYSIS.

TWO SILT SAMPLES WERE TAKEN IN A CLEAR-CUT NORTH OF THE HEN-LEDGE BOUNDARY AND DRAINING AN AREA OF MAINLY BASALTIC TUFFS. MAIN TREND TO THE ROCK IS 096'. **97PAG:CS1** IS SLIGHTLY ELEVATED IN **ZINC** AT **135 ppm. 97PAG:CS4** CONTAINED **2.0 ppm CADMIUM** AND **127 ppm ZINC**. (CLEAR-CUT #2)

HORNFELSED AUGITE PORPHYRY OCCASIONALLY WITH GARNETIFEROUS CONTENT AND TRENDING GENERALLY AT 215' TO 252' WAS MAPPED AND TAKEN FOR HAND SAMPLES IN A CLEAR-CUT NORTH OF THE LEDGE CLAIMS.(CLEAR-CUT #3)

THREE DAYS WERE ALSO SPENT ON MOUNT HENDRIX MAPPING OUTCROP. AS WATER WAS SCARCE ON THE MOUNTAIN ONLY ONE SILT SAMPLE WAS TAKEN **97PAG:CS15**. NO INTERESTING VALUES WERE RETURNED FOR THE SILT. ROCKS ON HENDRIX ARE PREDOMINANTLY AUGITE PORPHYRY - AUGITE-HORNBLENDE PORPHYRY. ANDESITIC AGGLOMERATE WAS ALSO OBSERVED CLOSE TO THE PEAK. NO MINERALIZATION OR ALTERATION WAS NOTED. DOMINANT TREND OF THE ROCKS IS 010' WITH AN EASTERLY DIP.(AREA 1)

SNOW BLANKETED THE DIETRICH CREEK AREA WHEN TRAVERSES WERE FINALLY UNDERTAKEN LIMITING THE ACCESSIBILITY TO OUTCROP.

ARGILLACEOUS SEDIMENTS AND PHYLLITES FORM THE OUTCROPS OBSERVED. NO MINERALIZATION OR ALTERATION WAS OBSERVED. OVERALL TREND HERE IS 320'.(AREA #2)

THE TERTIARY FLOWS ON TAKOMKANE MOUNTAIN CONTAIN PERIDOT/OLIVINE CRYSTAL FORMATIONS AND MINOR GEMSTONES. PART OF THE FLOW HAS BEEN STAKED AND IS INCLUDED IN THE SILVER BOSS CLAIMS BELONGING TO D. RIDLEY. THE AREA IS INCLUDED IN THE PROJECT BOUNDARY. IN AN ATTEMPT TO DISCOVER ADDITIONAL MATERIAL TRAVERSES WERE RUN OFF

[1] SEE FIGURE 12: HENDRIX MOUNTAIN WORK LOCATION MAP

HENDRIX MOUNTAIN WORK/SAMPLE LOCATION MAP

CARIBOO MD NTS: 92P/14 DEC.'97 CVR FIG.12

SCALE 1:20,000

CLEARCUT LOGGING BOUNDARY
OUTCROP
ROCK SAMPLE LOCATION
SILT SAMPLE LOCATION
BEDDING/ATTITUDE
SWAMPY AREA
SUBCROP/BOULDER RUBBLE
MAIN ROAD
LOGGING ROAD
STREAM/ CREEK

97-27 P9.34

THE CLAIMS EXAMINING THE FLOWS ON THE WEST FLANK OF THE SOUTHERN MOST CONE. NUMEROUS BOMBS CONTAINING CHRYSOLITE/OLIVINE WERE FOUND THOUGH MUCH WORK IS NEEDED TO FREE THE CRYSTALS FROM THE ROCK. SAMPLES OF THE PERIDOT HAVE BEEN SHOWN TO LOCAL MERCHANTS INTERESTED IN ROCKS AND MINERALS FROM NEARBY LOCALES. (AREA #3)[1]

CONCLUSIONS AND RECOMMENDATIONS

THE 1997 FIELD SEASON RESULTED IN THE IDENTIFICATION OF A NEW GOLD SHOWING AND THE CATALOGING OF TWO NEW INDUSTRIAL MINERAL SITES.

- A ZONE OF STRUCTURALLY CONTROLLED mineralization WAS DISCOVERED IN THE ART CREEK AREA. THE ART SHOWING CONSISTS OF PYRITE-ARSENOPYRITE MINERALIZATION ASSOCIATED WITH A KAOLIN-SERICITE ALTERED FAULT AT THE CONTACT BETWEEN RHYO-DACITE AND BASALT IN CLOSE PROXIMITY TO A SMALL, PARTLY UN-ROOFED, INTRUSION OF HORNBLENDE-BIOTITE GRANODIORITE. THE FAULT CAN BE TRACED AS STRONG LINEAMENTS ON AIR PHOTOS FOR AT LEAST 10 KILOMETERS. HIGH ARSENIC AND ELEVATED GOLD, ZINC AND CADMIUM MAKE THIS AREA A VIABLE TARGET FOR FURTHER EXPLORATION. A SILT SAMPLE FROM McKINLEY CREEK TAKEN DURING THE 1980'S RETURNED 260 ppb GOLD. THE SAMPLE SITE IS APPROXIMATELY FIVE KILOMETERS NORTH AND ON STRIKE WITH THE ART SHOWING.
- THOUGH SOIL RESULTS AT THE ART SHOWING WERE SPOTTY THEY DID AID IN DELINEATING TWO INTERESTING ANOMALOUS ZONES WHICH ARE COINCIDENT WITH THE MINERALIZED SHOWING.
    - FURTHER GRASS-ROOTS PROSPECTING ON AN EXTENDED SOIL GRID CONSISTING OF ROCK SAMPLING AND A GEOPHYSICAL SURVEY MAY HELP TO UNCOVER AN EXTENSION OF THE MINERALIZED ZONE.
- THE CELTIC STAUROLITE/ANDALUSITE SHOWING THOUGH NOT OF ECONOMIC INTEREST AT PRESENT DUE TO THE LOW QUALITY OF THE INDUSTRIAL MINERALS IS AN INTERESTING *DISCOVERY IN LIGHT OF THE INCREASING DEMAND FOR ROCK HOUNDING LOCATIONS. THE* FACT THAT STAUROLITE IS NOT COMMONLY FOUND IN OUR PROVINCE IN SUCH GOOD CRYSTAL FORM ENFORCES ITS VIABILITY AS A COLLECTION SITE.
    - ADDITIONAL TRAVERSES ARE NEEDED TO EXPLORE THE POSSIBILITY OF MORE OUTCROP IN THE AREA. HOWEVER THE MATERIAL NOW AVAILABLE IS MORE THAN ENOUGH TO ESTABLISH THE CLAIMS AS A FEASIBLE COLLECTION SITE.

[1] See Fig. 6

- THE NEW PERIDOT/OLIVINE SHOWING ON THE 6200 RD (BOSS CREEK) NEEDS MORE EXPLORATION IN ORDER TO UNCOVER POSSIBLE COLLECTABLE MATERIAL. UNLIKE THE SHOWING ON TAKOMKANE MOUNTAIN WHERE CRYSTALS CAN BE EASILY OBTAINED IN LOOSE SURFACE MATERIAL, THE CRYSTALS APPARENT IN THE NEW SHOWING ARE ENCASED IN COMPETENT ROCK MAKING THE EXTRACTION A LENGTHY PROCESS.

    - FURTHER TRAVERSES ARE NEEDED IN ORDER TO DETERMINE IF PYROCLASTIC BOMBS CONTAINING THE MINERALS EXIST IN THE AREA. EXTRACTION OF CRYSTALS WOULD BE GREATLY AIDED IF THIS PROVED TO BE THE CASE.

- THE DECEPTION CREEK AREA BEARS MORE STUDY IN LIGHT OF THE DISCOVERY OF THE CALC-SILICATE BODIES UNCOVERED DURING THIS YEARS PROGRAM. TUNGSTEN SILT ANOMALIES ARE KNOWN TO EXIST IN CREEKS ON THE NORTH SIDE OF DECEPTION CREEK. THESE ANOMALIES AND THE PRESENCE OF SKARN IN THE AREA MAKE IT A VIABLE TARGET FOR FURTHER EXPLORATION OF THE AREA.

    - ROCK AND SILT SAMPLING ON THE NORTH SIDE OF DECEPTION CREEK AND IN CLEAR-CUTS AS YET UNEXAMINED MAY HELP TO UNCOVER FURTHER SKARN MINERALIZATION/ALTERATION IN THE AREA.

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- DAVID BLANN

PROSPECTING AND TRENCHING REPORT ON THE HEN GROUP AR# 23214

- DAVID RIDLEY
- DAVID DUNN

ROCK SAMPLE SHEET

Sampler: C J Ridley
Date: Summer/97
Property: 97 PAG
NTS: 92P/15 & 93A/[illegible]

SAMPLE NO.	Sample Width	DESCRIPTION: Rock Type	DESCRIPTION: Alteration	DESCRIPTION: Mineralization	ADDITIONAL OBSERVATIONS	ASSAYS (ppm) Cu	Pb	Zn	As	(ppb) Au
97 PAG CR1	grab	Augite Porph.	Qtz. Hornfelsed	minor Py	GPS: 653455E 5769489N 3406' ELEV. - ? sc/oc - stkwrk Qtz veins; 1st clrct. W of 6300 Rd	107	3	30	7	<2
CR2	comp. grab	Volcanic	silica	minor Py/Po	GPS: 593E 952N 1100m. elev. - s.c. rubble - ? poss. tuff; clrct. W/6300	15	6	15	<2	<2
CR3	grab	Qtz.	—	—	GPS: 663900E 5761810N 4180' elev. - ? sc - Qtz Bldr.; Art CK spur	12	<3	7	<2	15
CR4	grab	Augite Porphyry		minor Py/Po	- 1.25 m. N from CR3 - 024°/72°E; ★ Sr → 3041 ppm	274	18	23	4	8
CR5	3.5m	ultra mafic	chlorite silica	Pyrite	- 20m. NW from CR4/E side of Rd. - 144°/72° S.W.; ★ Ni - 660ppm. CR - 795ppm	66	7	22	7	88
CR6	grab	ultra. mafic			663929E 5762519N - foliation (?) 058° - ? trend 314°; ★ Ni - 943 ppm CR - 719 ppm Co - 103 "	22	<3	31	29	<2
CR7	grab	Fault Breccia	silica calcite	Pyrite	- 50m. N of CR6 663930E 5762932N - 352°/78°W; Art CK.	130	11	67	<2	<2
CR8	4/5cm	Qtz. Vein	—	Pyrite	70m. N from CR7 4295' elev. - 298°/88° NE; Art CK	147	52	92	114	18
CR9	grab	intrusive Breccia	epidote	Pyrite	- N from CR8 - epidote stkwrk - 171°/90°; Art CK	23	5	33	<2	4
CR10	grab	Rhyo-dacite		Pyrite → 3%	- N of CR9 - 180°/86°W; * .5m wide Qtz vein cuts RX.	11	20	7	1371	167
CR11	30cm	Augite Porphyry	chlorite calcite	Pyrite	- N of CR11 - 130°/90°	123	16	50	10	3
CR12	30cm	Breccia	chlorite calcite	2% Pyrite	@ 1030m. from Y - fracture zone - trend 334°; Art CK log spur	161	3	53	38	3
CR13	comp. grab	Volcanic	calcite chlorite Diopside	Pyrite	2.9 miles (Bike) from 7000 rd.; Burtt CK. Rd.	14	<3	23	24	<1
CR14	grab	Fault Gouge	chlorite calcite silica		- across rd. from CR13; Sr: 1112 (ppm) Cd: 143.9 (ppm); Burtt CK Rd	178	25	1055	36	6
CR15	40cm.	Rhyo-dacite	hematite		@ 20m. N.E. from CR10 [illegible] - oc (1m x .5m); cd: 335.2 (ppm); ART CK. Rd	121	11	3040	81	12

C-CHIP G-GRAB F-FLOAT

ROCK SAMPLE SHEET

Sampler CJ Ridley
Date Summer/97

Property 97 PAG

NTS 92P/15 & 93A/2

SAMPLE NO.	Sample Width	DESCRIPTION: Rock Type	Alteration	Mineralization	ADDITIONAL OBSERVATIONS	ASSAYS (Cu ppm)	Pb ppm	Zn ppm	As ppm	Au ppb
97 PAG CR16	grab	Rhyo-dacite	hematite	Pyrite	12m. N of CR10 - N/S major fracture trend — Art CK Rd.	35	17	50	75	22
CR17	60cm.	felsic Rhyo-dacite	calcite	Py, AsPy	4m. N of CR10 OC - 83°/90° — Art CK Rd. — As: 1753 (ppm)	16	21	25	1753	56
CR18	64cm	Felsic Rhyo-dacite	"	"	1m. S from CR17 — "	10	27	5	>200	120
CR19	72cm.	Rhyo-dacite	calcite	Py	Re-sample CR10 - euhedral Py crystals — "	27	77	19	132	87
CR20	comp grab	LST/ Biotite Schist	calcite diopside	Py, Po, garnet	GPS: 672399E 7 - N of bridge 5769386N S - OC/253°/18°S — Deception CK Rd.	63	4	15	37	2
CR21	3m's	siliceous intrusive		Py	12m. S. of CR20 OC - 010°/slight dip W — "	34	5	12	9	<1
CR22	grab	siliceous intr. dyke		Py	@ CR21 - OC - 172°/50°E — "	12	47	17	6	<1
CR23	1.4m	Rhyo-dacite	sericite	Py	@ CR10 - footwall: 192°/82°W — Art CK	19	20	32	1080	40
CR24	30cm.	Rhyo-dacite	sericite	Py	@ 5m. N. of CR18 - hanging wall: 190°/70°E — Art CK	34	77	21	39	31
ART97DR1	grab	Rhyo-dacite	hematite sphalerite pyrite	Py	20m. E of BL25E: alteration zone: 40cms. wide zone trend: 010°/60°E	9		98	42	<1
ART97DR2	grab	Hornfels Tuff	Qtz calcite Barite	Py → 1%	15m. N of DR1 Qtz-carb stKwks — *B: 298 ppm *Sr: 774 ppm *Ca: 17.62%	14	4	10	77	<1
ART97DR3	grab	Hornfelsed Mafic Volcanic	Qtz Carb.	Py	7m. N of DR2 Qtz-carb stRWR — *Sr: 359 ppm *Ca: 10.28% *V: 305 ppm	50	10	29	17	<1
ART97DR4	grab	Diorite	limonite	Py → 10%		210	60	164	35	1950

C-CHIP G-GRAB F-FLOAT

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Ridley, C.J. PROJECT PAG97 File # 97-6551 Page 1

General Delivery, Eagle Creek BC V0K 1L0

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
L51N 24E	1	33	5	96	.3	42	33	839	6.70	8	<8	<2	2	39	.9	<3	5	167	.70	.106	2	92	3.86	212	.35	3	4.01	.03	.24	2
L51N 24+25E	1	25	12	83	.5	35	18	364	4.64	6	<8	<2	<2	20	.7	<3	7	130	.38	.044	4	99	2.10	162	.23	8	2.67	.02	.08	3
L51N 24+50E	3	52	12	114	.3	95	26	1864	4.17	38	<8	<2	<2	54	1.2	<3	<3	100	1.01	.099	9	137	1.50	193	.09	5	2.40	.02	.12	<2
L51N 24+75E	1	16	<3	20	<.3	22	1	282	.49	4	<8	<2	<2	182	.4	<3	<3	7	3.00	.075	3	6	.12	216	.01	12	.26	.01	.01	<2
L51N 25E BL	2	40	14	125	<.3	85	18	279	5.33	20	<8	<2	3	20	1.0	<3	<3	107	.34	.088	12	233	1.66	206	.19	<3	2.27	.02	.19	<2
L51N 25+25E	2	39	13	90	.3	97	18	330	5.75	44	9	<2	2	16	.5	8	3	159	.20	.039	8	359	2.64	167	.16	3	2.76	.02	.13	<2
L51N 25+50E	3	74	13	154	<.3	142	23	858	4.39	28	<8	<2	3	21	1.6	<3	<3	90	.23	.066	20	202	1.52	257	.11	3	3.05	.02	.14	2
L51N 25+75E	2	27	10	83	<.3	68	12	211	3.47	14	<8	<2	3	27	.4	<3	<3	69	.42	.141	18	130	.95	131	.10	3	1.63	.01	.10	2
L51N 26E	3	76	9	99	.3	32	20	733	5.30	24	<8	<2	2	27	1.3	<3	<3	148	.32	.075	16	43	.92	157	.09	3	2.25	.02	.15	<2
L50+50N 24E	3	71	12	126	1.1	89	22	2951	4.10	21	<8	<2	<2	42	2.0	<3	<3	95	.63	.092	21	162	1.47	324	.07	5	2.47	.02	.17	3
L50+50N 24+25E	3	51	12	95	.4	84	27	847	3.72	19	<8	<2	<2	24	1.3	<3	<3	72	.30	.042	13	105	.92	170	.09	<3	2.19	.02	.12	2
L50+50N 24+50E	43	25	8	111	.7	81	123	20037	19.00	338	<8	<2	2	102	3.2	<3	<3	80	1.30	.159	9	49	.33	1285	.02	<3	1.23	.02	.05	2
L50+50N 24+75E	4	48	5	18	1.4	26	6	1481	.81	54	12	<2	<2	151	2.0	5	<3	15	4.82	.132	8	19	.13	214	.01	9	.72	.02	.03	<2
L50+50N 25E BL	2	64	18	94	3.3	96	18	1422	3.36	98	<8	<2	<2	49	3.5	4	<3	66	1.25	.076	16	131	.78	229	.07	<3	2.76	.04	.15	<2
L50+50N 25+25E	2	28	11	59	<.3	108	12	249	3.35	150	<8	<2	<2	12	.5	3	<3	89	.19	.050	10	228	1.22	110	.15	<3	1.78	.02	.07	<2
L50+50N 25+50E	1	128	7	84	<.3	198	47	1270	6.67	62	<8	<2	<2	53	1.1	4	<3	300	.68	.145	5	572	3.88	312	.31	<3	6.04	.15	.24	4
L50+50N 25+75E	2	18	9	79	<.3	52	10	226	3.18	13	<8	<2	2	14	.6	<3	4	77	.21	.090	17	109	.76	86	.12	<3	1.51	.01	.07	<2
L50+50N 26E	2	58	15	78	1.9	72	18	805	3.09	16	<8	<2	<2	31	2.2	<3	<3	58	.60	.065	18	89	.65	174	.08	<3	2.15	.02	.14	2
L50N 24E	2	129	11	69	1.7	89	18	254	3.52	10	<8	<2	<2	78	1.8	<3	<3	103	1.11	.054	13	134	.97	289	.08	<3	2.95	.02	.09	<2
L50N 24+25E	2	82	12	90	.9	183	22	993	3.45	20	<8	<2	<2	73	1.7	<3	<3	67	1.01	.069	12	113	.82	214	.06	4	2.22	.02	.16	<2
L50N 24+50E	3	76	19	124	1.6	119	21	669	4.29	38	<8	<2	2	54	2.5	4	<3	70	.84	.053	19	146	1.07	270	.09	5	2.43	.03	.25	2
RE L50N 24+50E	3	81	15	135	1.8	126	23	718	4.65	41	<8	<2	<2	56	2.3	<3	<3	75	.88	.056	20	157	1.16	293	.09	8	2.60	.04	.27	2
L50N 24+75E	2	28	11	70	.3	55	12	300	2.63	56	<8	<2	2	16	.4	3	<3	53	.24	.062	16	88	.74	108	.09	<3	1.42	.01	.10	<2
L50N 25E BL	2	31	13	120	<.3	53	13	319	3.56	12	<8	<2	3	13	.9	<3	<3	71	.16	.100	15	121	.86	118	.10	5	2.45	.01	.09	<2
L50N 25+25E	1	9	8	18	<.3	10	2	52	1.19	26	<8	<2	<2	6	.2	<3	<3	31	.06	.028	9	32	.14	53	.05	<3	.96	.01	.03	<2
L50N 25+50E	1	114	5	94	.3	366	40	631	4.76	13	9	<2	<2	33	1.5	<3	6	102	.90	.119	4	428	2.64	124	.36	3	4.06	.08	.12	3
L50N 25+75E	2	29	13	97	.4	64	15	579	3.16	13	<8	<2	<2	15	1.4	<3	<3	67	.23	.069	13	123	.73	179	.09	7	1.91	.01	.08	<2
L50N 26E	2	16	7	34	<.3	36	5	109	1.56	4	8	<2	<2	8	.5	<3	<3	43	.09	.046	8	68	.42	57	.09	<3	.72	.01	.04	<2
L49+50N 24E	2	71	11	116	.4	322	55	996	4.42	25	<8	<2	<2	38	1.5	<3	<3	79	.59	.047	13	224	3.03	157	.09	<3	2.73	.02	.10	2
L49+50N 24+25E	<1	210	4	91	<.3	97	52	1259	9.86	6	<8	<2	3	47	1.3	<3	4	396	1.55	.174	5	139	4.97	576	.33	<3	5.41	.02	1.55	3
L49+50N 24+50E	3	60	18	154	<.3	130	27	926	4.67	34	<8	<2	<2	47	.8	3	5	95	.69	.056	15	246	1.96	262	.12	3	2.84	.03	.29	2
L49+50N 24+75E	2	20	10	68	.8	34	8	193	2.33	11	<8	<2	<2	15	.6	<3	<3	57	.19	.039	11	83	.63	143	.13	<3	1.29	.02	.08	<2
L49+50N 25E BL	2	19	9	61	.4	32	8	188	2.84	23	<8	<2	<2	10	.4	<3	<3	74	.12	.097	7	74	.51	91	.13	<3	1.34	.02	.06	<2
L49+50N 25+25E	1	91	7	103	<.3	530	58	1080	5.27	10	<8	<2	<2	18	1.2	<3	<3	95	.55	.104	6	650	3.31	151	.25	3	3.83	.05	.07	<2
L49+50N 25+50E	1	44	8	75	.4	400	49	446	6.50	40	<8	<2	2	20	.8	<3	<3	207	.47	.045	4	789	4.69	68	.21	<3	4.61	.02	.06	2
STANDARD C3	26	67	36	170	5.8	40	11	762	3.46	53	18	2	19	30	23.4	16	19	83	.60	.085	19	176	.62	148	.11	18	1.92	.04	.16	22
STANDARD G-1	<1	2	5	45	<.3	7	4	560	2.14	<2	<8	<2	5	81	<.2	<3	<3	45	.66	.091	9	90	.62	250	.15	<3	1.09	.11	.52	5

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.
- SAMPLE TYPE: SOIL Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 5 1997 DATE REPORT MAILED: Nov 12/97 SIGNED BY: .....D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Data FA

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
L49+50N 25+75E	2	48	17	98	<.3	99	17	284	3.43	15	<8	<2	4	21	.6	<3	<3	61	.38	.119	21	139	1.12	120	.10	<3	1.96	.01	.10	<2
L49+50N 26E	3	25	8	104	<.3	56	13	327	3.13	12	8	<2	3	17	.6	5	<3	57	.32	.093	19	105	.77	141	.10	<3	1.30	.02	.11	<2
L49N 24E	3	28	9	137	.5	72	15	223	5.13	21	<8	<2	2	27	1.2	<3	3	115	.36	.166	15	158	1.19	218	.13	<3	2.36	.01	.09	<2
L49N 24+25E	1	68	7	115	<.3	80	31	825	5.16	5	<8	<2	<2	45	1.0	<3	4	121	.74	.256	4	169	2.44	313	.23	<3	2.85	.03	.36	<2
L49N 24+50E	3	173	14	107	2.3	121	16	1048	3.01	20	<8	<2	<2	47	1.6	<3	4	67	.97	.075	15	95	.58	250	.08	<3	2.41	.03	.18	<2
L49N 24+75E	2	12	9	61	.3	38	6	149	2.29	8	<8	<2	<2	18	.4	<3	<3	67	.22	.066	15	86	.64	117	.15	<3	1.09	.01	.08	<2
L49N 25E BL	3	22	12	104	.7	57	12	271	3.56	12	<8	<2	3	22	1.1	<3	<3	82	.27	.139	17	129	.97	105	.13	<3	1.54	.02	.11	<2
L49N 25+25E	3	28	13	73	.6	47	11	279	2.93	16	<8	<2	<2	20	.7	<3	3	58	.25	.049	19	78	.55	142	.08	3	1.53	.01	.09	<2
RE L49N 25+25E	3	33	10	78	.5	47	13	302	3.11	11	<8	<2	<2	22	1.0	<3	4	60	.27	.051	20	82	.58	135	.08	<3	1.63	.02	.09	<2
L49N 25+50E	2	32	5	80	<.3	68	15	1072	2.34	7	<8	<2	<2	24	.5	<3	<3	59	.42	.082	6	100	.62	154	.16	<3	1.14	.02	.08	<2
L49N 25+75E	1	25	6	72	<.3	90	15	293	3.09	3	<8	<2	<2	25	.6	<3	<3	68	.46	.118	3	114	.70	96	.24	<3	1.72	.02	.05	<2
L49N 26E	3	31	8	112	<.3	70	15	371	3.99	18	<8	<2	2	24	1.1	<3	<3	76	.42	.096	17	122	.97	168	.12	<3	1.64	.01	.10	<2
STANDARD C3	27	66	36	172	5.4	36	12	759	3.47	57	22	<2	18	30	23.1	16	28	83	.60	.086	19	177	.61	158	.11	21	1.98	.04	.16	19
STANDARD G-1	<1	4	<3	47	<.3	5	3	571	2.22	<2	<8	<2	5	79	<.2	<3	<3	46	.68	.091	10	87	.63	260	.16	<3	1.10	.09	.51	5

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ___ FA ___

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Ridley, C.J. PROJECT 97PAG File # 97-3054 Page 1

General Delivery, Eagle Creek BC V0K 1L0 Submitted by: C.J. Ridley

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
97PAG CR1	1	107	3	30	<.3	107	30	349	3.05	7	<5	<2	<2	111	.2	<2	<2	78	2.35	.085	4	136	1.76	214	.16	<3	2.05	.30	.50	<2	<2
97PAG CR2	<1	15	6	15	<.3	19	17	177	3.38	<2	<5	<2	<2	94	<.2	3	<2	98	1.26	.203	13	26	.32	106	.39	<3	.55	.10	.17	3	<2
97PAG CR3	2	12	<3	7	<.3	12	3	134	.81	<2	<5	<2	<2	5	<.2	<2	<2	6	.06	.024	2	23	.07	16	.01	<3	.12	.01	.01	5	15
97PAG CR4	1	274	18	23	<.3	83	35	339	5.40	4	<5	<2	<2	3041	<.2	5	<2	146	.56	.162	3	149	2.14	131	.24	<3	2.04	.13	.91	<2	8
97PAG CR5	<1	66	7	22	<.3	660	64	311	5.19	7	<5	<2	<2	52	<.2	<2	<2	87	.37	.054	2	795	6.09	71	.02	<3	2.01	.01	.02	<2	88
97PAG CR6	<1	22	<3	31	<.3	943	103	1083	7.41	29	<5	<2	<2	10	<.2	<2	<2	57	.13	.035	1	719	6.94	36	.02	4	1.15	<.01	.01	<2	<2
97PAG CR7	13	130	11	67	<.3	90	34	485	5.82	<2	<5	<2	<2	88	.3	<2	<2	138	1.35	.125	3	98	1.54	92	.22	<3	1.26	.12	.99	2	<2
97PAG CR8	12	148	55	93	.4	316	65	196	3.42	114	<5	<2	<2	13	<.2	3	<2	97	.11	.034	2	330	1.88	95	.05	<3	1.61	.02	.20	8	18
RE 97PAG CR8	12	147	52	92	.5	313	65	195	3.40	111	<5	<2	<2	13	.3	2	<2	95	.11	.032	2	326	1.86	94	.05	<3	1.60	.02	.19	7	28
97PAG CR9	1	23	5	33	<.3	29	18	474	3.47	<2	<5	<2	<2	139	<.2	<2	<2	144	1.00	.118	1	75	2.07	269	.21	<3	2.16	.08	1.49	3	4
97PAG CR10	2	11	20	7	.4	7	5	67	6.83	1371	<5	<2	3	20	<.2	10	<2	7	.08	.100	9	11	.03	32	<.01	4	.33	.07	.13	6	167
97PAG CR11	2	123	16	50	<.3	170	45	471	5.72	10	<5	<2	<2	36	<.2	<2	<2	97	.81	.127	2	221	1.89	122	.30	<3	1.76	.09	1.51	<2	3
STANDARD C3/AU-R	25	63	35	164	5.4	34	12	707	3.41	54	20	3	18	30	23.8	17	23	82	.56	.087	17	167	.62	148	.10	19	1.90	.04	.16	21	496

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.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: P1 ROCK P2 SILT AU** ANALYSIS BY FA/ICP FROM 30 GM SAMPLE.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUN 23 1997 **DATE REPORT MAILED:** July 2/97 **SIGNED BY.....** D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Data ___ FA ___

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Ridley, C.J. PROJECT 97PAG File # 97-4451

General Delivery, Eagle Creek BC V0K 1L0 Submitted by: C.J. Ridley

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
97PAG CR12	1	161	3	53	<.3	19	23	599	4.87	38	<8	<2	<2	57	<.2	<3	<3	178	1.21	.172	6	35	1.61	204	.25	<3	1.91	.12	1.41	<2	3
97PAG CR13	1	14	<3	23	<.3	3	5	326	2.51	24	<8	<2	2	15	.2	<3	<3	80	.33	.138	16	9	.96	112	.07	<3	1.32	.07	.22	<2	<1
97PAG CR14	69	178	25	1055	8.6	42	18	760	2.64	36	<8	<2	2	1112	143.9	11	<3	101	9.23	.106	15	31	.98	128	.10	<3	2.10	.05	.18	<2	6
97PAG CR15	66	121	11	3049	8.9	50	19	1538	6.58	81	<8	<2	<2	280	335.2	<3	<3	126	7.28	.093	20	32	1.21	82	.04	6	.89	.05	.09	<2	13
97PAG CR16	3	35	17	50	<.3	6	4	207	2.76	75	<8	<2	3	26	1.6	20	<3	50	.51	.139	23	7	.90	108	<.01	7	1.31	.07	.15	2	22
97PAG CR17	2	16	21	25	1.2	8	10	187	3.18	1753	<8	<2	2	22	1.5	18	<3	8	.15	.098	17	11	.03	83	<.01	6	.42	.06	.13	<2	56
97PAG CR18	<1	10	27	5	<.3	11	38	361	7.13	20012	<8	<2	2	34	<.2	79	<3	8	.68	.130	11	5	.25	44	<.01	<3	.39	.07	.11	<2	120
97PAG CR19	2	27	77	19	.3	10	8	259	4.30	1332	<8	<2	2	34	.7	35	3	10	.18	.106	18	8	.07	101	<.01	5	.48	.08	.15	2	87
97PAG CR20	<1	63	4	15	.3	44	22	310	3.16	37	<8	<2	4	147	<.2	<3	9	15	1.77	.089	24	30	.17	12	.17	<3	1.10	.12	.05	4	2
RE 97PAG CR20	1	64	6	16	.3	46	23	323	3.32	37	<8	<2	4	155	<.2	<3	11	15	1.83	.091	25	27	.18	12	.18	<3	1.16	.13	.05	4	3
97PAG CR21	1	34	5	12	<.3	14	9	92	2.10	9	<8	<2	14	57	<.2	<3	<3	19	.45	.020	24	39	.11	22	.22	<3	.44	.09	.03	2	<1
97PAG CR22	<1	12	4	17	<.3	19	8	166	1.32	6	<8	<2	13	25	<.2	<3	3	17	.43	.038	55	38	.16	14	.13	4	.35	.08	.04	4	<1
STANDARD C3/AU-R	25	63	34	152	5.1	35	12	731	3.46	53	19	4	16	30	22.6	16	21	81	.59	.085	21	169	.64	154	.10	17	1.96	.04	.17	21	448

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.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 18 1997 DATE REPORT MAILED: Aug 26/97 SIGNED BY ..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Data FA

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Ridley, C.J. PROJECT PAG97 File # 97-6552

General Delivery, Eagle Creek BC V0K 1L0

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
ART97 DR1	1	9	16	98	.3	23	8	702	3.01	42	<8	<2	2	13	1.4	18	<3	68	.30	.134	10	91	1.55	53	.01	5	1.78	.04	.09	2	<1
ART97 DR2	1	14	4	10	<.3	72	10	391	.98	77	<8	<2	<2	774	.2	3	<3	35	17.62	.030	6	144	.55	61	.05	27	.73	.06	.34	3	<1
ART97 DR3	<1	50	10	29	<.3	22	11	304	1.35	17	<8	<2	<2	359	.2	5	<3	36	10.28	.029	5	50	.85	105	.05	298	.65	.09	.20	3	<1
ART97 DR4	40	210	60	164	15.4	26	20	435	4.85	35	<8	3	2	40	1.7	4	<3	305	.65	.134	7	86	1.67	185	.21	<3	1.82	.08	.82	<2	1950
PAG97 CR23	1	19	20	32	<.3	5	10	241	2.17	1085	<8	<2	4	29	.5	8	<3	42	.72	.136	18	8	.59	91	.02	10	.90	.06	.17	<2	40
PAG97 CR24	2	34	77	21	1.5	5	4	102	2.05	391	<8	<2	4	31	.3	34	<3	15	.34	.122	16	5	.20	74	<.01	8	.53	.07	.15	<2	31
RE PAG97 CR24	2	35	81	23	1.6	5	3	108	2.14	401	<8	<2	4	32	.3	37	3	15	.36	.127	18	6	.21	75	<.01	8	.54	.07	.15	<2	29
STANDARD C3/AU-R	23	63	35	161	5.3	37	12	737	3.37	53	19	2	14	30	21.6	12	20	84	.59	.088	20	172	.61	151	.11	19	1.94	.04	.16	15	510
STANDARD G-1	2	3	3	47	<.3	10	5	578	2.16	2	<8	<2	3	76	<.2	<3	<3	44	.64	.078	8	99	.67	267	.16	<3	1.13	.08	.52	<2	<1

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.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 5 1997 DATE REPORT MAILED: Nov 13/97 SIGNED BY. . . . . D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Data ✓ FA ____

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
97PAG CS1	2	71	<3	135	.3	37	17	738	4.30	11	<5	<2	<2	47	1.3	<2	<2	120	.83	.090	7	62	1.72	64	.19	<3	2.39	.03	.19	<2
97PAG CS2	2	30	8	79	.4	46	14	1699	3.03	17	<5	<2	<2	39	.5	<2	2	62	.81	.099	10	70	.87	185	.07	5	1.37	.02	.10	<2
97PAG CS3	4	42	12	127	<.3	124	35	4710	4.96	54	<5	<2	<2	48	1.5	<2	<2	88	.77	.112	11	152	1.69	330	.10	<3	2.17	.02	.19	<2
97PAG CS4	3	83	9	166	.5	47	17	820	4.71	3	<5	<2	<2	47	2.0	<2	2	136	.81	.086	9	69	1.88	79	.23	<3	2.68	.02	.20	<2
RE 97PAG CS4	3	91	12	172	.6	43	18	838	4.82	<2	<5	<2	<2	50	2.1	<2	<2	140	.86	.086	9	70	1.93	86	.24	5	2.73	.03	.21	<2
STANDARD C3	26	66	36	166	5.5	37	11	719	3.45	55	26	<2	18	31	22.8	17	20	83	.59	.096	18	172	.65	161	.11	18	1.97	.05	.17	17

Sample type: SILT. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ___ FA ___

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Ridley, C.J. PROJECT 97PAG File # 97-4452

General Delivery, Eagle Creek BC V0K 1L0 Submitted by: C.J. Ridley

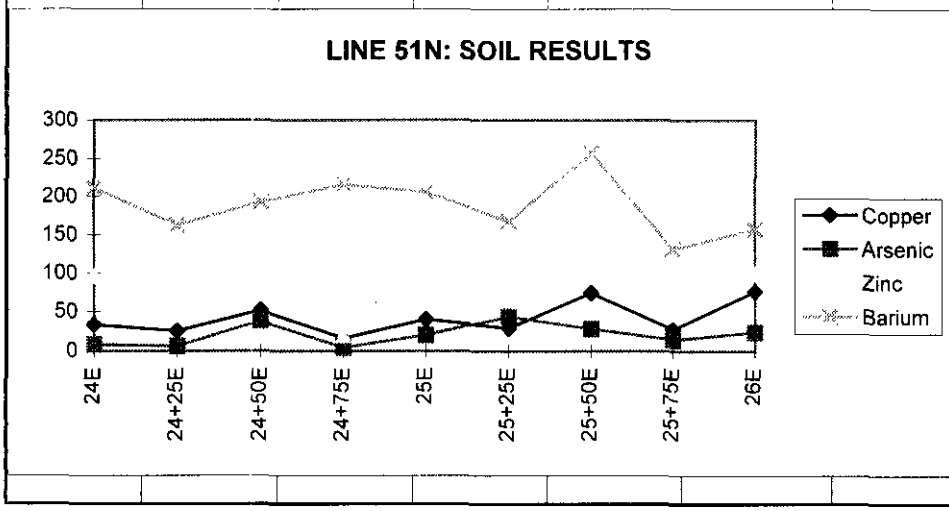
SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
97PAG CS5	1	46	4	79	1.7	49	19	1154	3.84	17	<8	<2	2	43	.4	<3	<3	123	.97	.161	10	78	1.51	157	.14	<3	1.93	.03	.29	<2
97PAG CS6	1	47	6	109	.3	70	22	989	3.73	25	<8	<2	<2	46	.7	<3	<3	101	.87	.126	9	113	1.63	161	.12	<3	2.29	.02	.19	<2
97PAG CS8	<1	15	5	45	<.3	234	22	553	2.47	2	<8	<2	2	18	<.2	<3	<3	31	.35	.057	13	93	2.39	65	.07	<3	1.42	.02	.16	<2
97PAG CS9	1	24	9	51	<.3	117	17	399	2.64	<2	<8	<2	4	21	<.2	<3	<3	32	.30	.067	19	78	.79	107	.09	<3	2.54	.02	.27	6
97PAG CS10	<1	7	3	27	<.3	224	18	322	1.62	<2	<8	<2	4	9	<.2	<3	<3	15	.21	.051	12	50	2.55	41	.05	<3	.74	.01	.14	<2
97PAG CS11	<1	10	4	26	<.3	65	9	193	1.50	<2	<8	<2	3	14	<.2	<3	<3	20	.24	.048	17	37	.63	61	.07	<3	1.19	.01	.16	5
RE 97PAG CS11	<1	12	5	26	<.3	67	9	194	1.54	2	<8	<2	3	15	.2	<3	<3	20	.25	.047	16	37	.65	62	.07	<3	1.23	.01	.16	6

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.
- SAMPLE TYPE: SILT Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

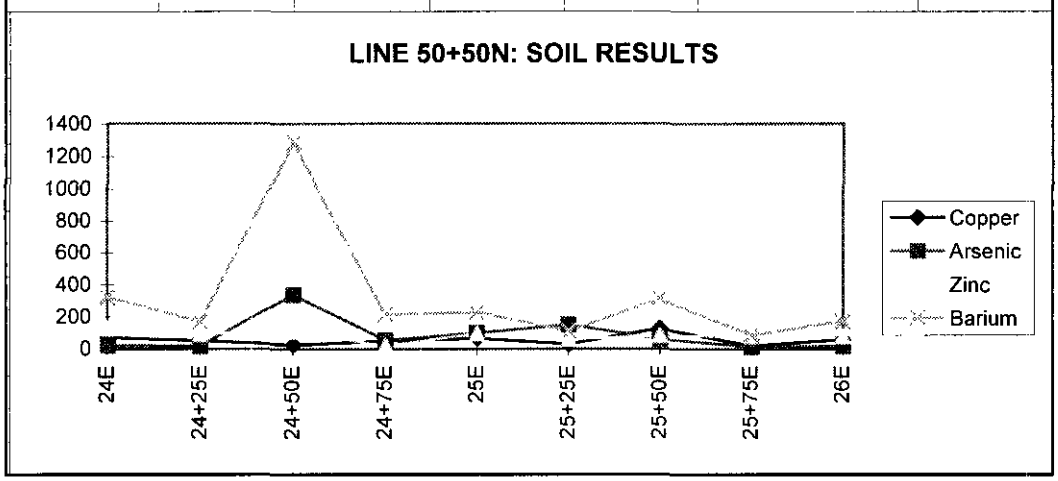
DATE RECEIVED: AUG 18 1997 **DATE REPORT MAILED:** Aug 27/97 **SIGNED BY.....** D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Data ___ FA ___

Line 51N: Soil Results				
	Copper	Arsenic	Zinc	Barium
24E	33	8	96	212
24+25E	25	6	83	162
24+50E	52	38	114	193
24+75E	16	4	20	216
25E	40	20	125	206
25+25E	29	44	90	167
25+50E	74	28	154	257
25+75E	27	14	83	131
26E	76	24	99	157

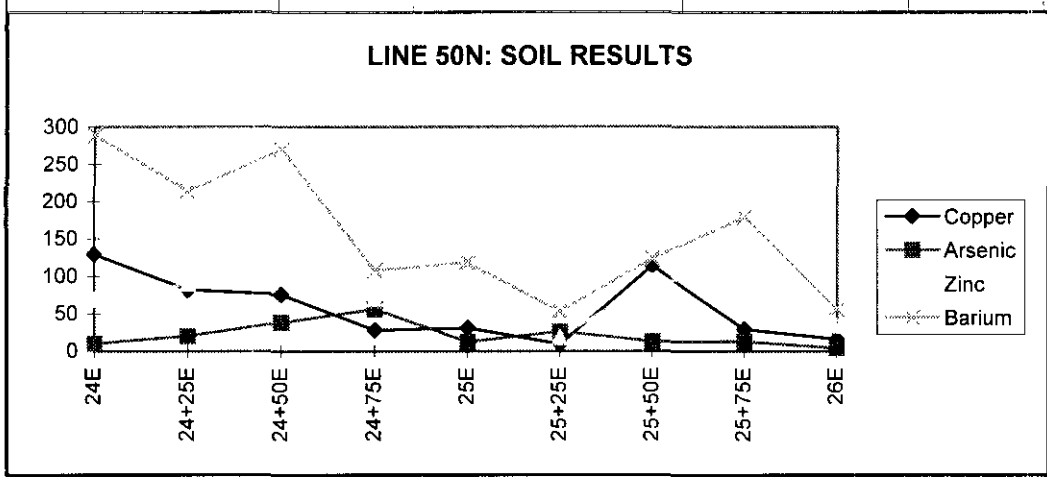


Line 50+50 N						
	Copper	Arsenic	Zinc	Barium		
24E	71	21	126	324		
24+25E	51	19	95	170		
24+50E	25	338	111	1285		
24+75E	48	54	18	214		
25E	64	98	94	229		
25+25E	28	150	59	110		
25+50E	128	62	84	312		
25+75E	18	13	79	86		
26E	58	16	78	174		

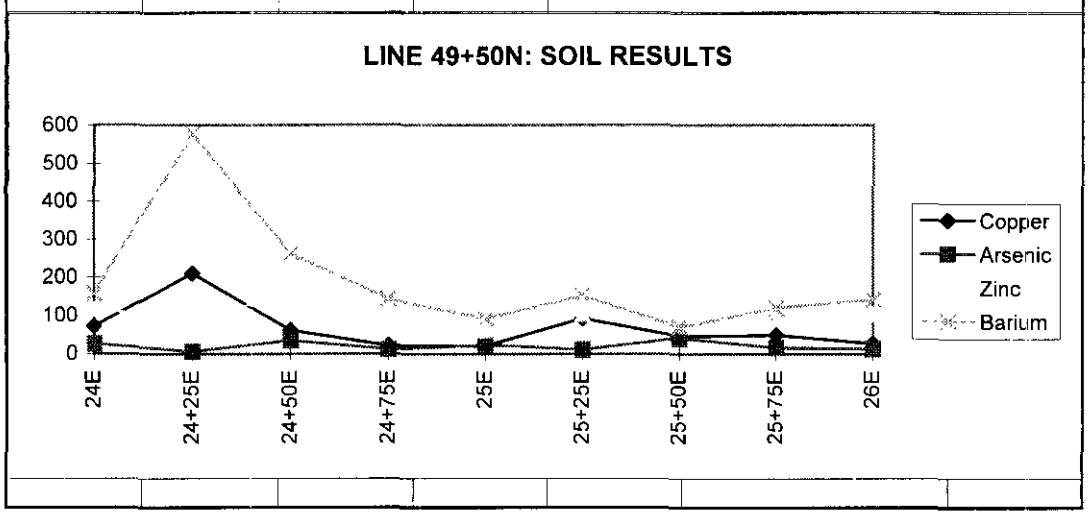


Line 50N Soil Results

	Copper	Arsenic	Zinc	Barium
24E	129	10	69	289
24+25E	82	20	90	214
24+50E	76	38	124	270
24+75E	28	56	70	108
25E	31	12	120	118
25+25E	9	26	18	53
25+50E	114	13	94	124
25+75E	29	13	97	179
26E	16	4	34	57

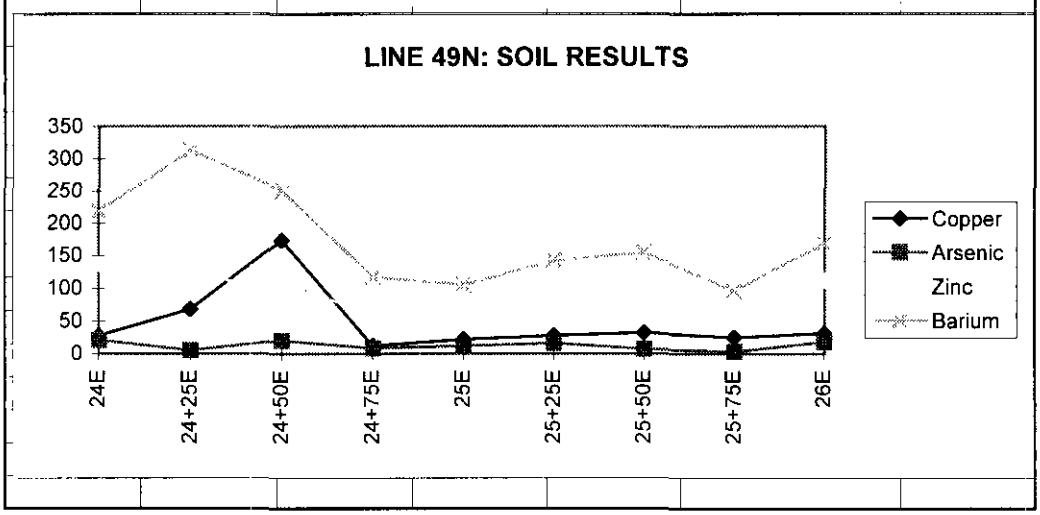


Line 49+50N: Soil Results				
	Copper	Arsenic	Zinc	Barium
24E	71	25	116	157
24+25E	210	6	91	576
24+50E	60	34	154	262
24+75E	20	11	68	143
25E	19	23	61	91
25+25E	91	10	103	151
25+50E	44	40	75	68
25+75E	48	15	98	120
26E	25	12	104	141

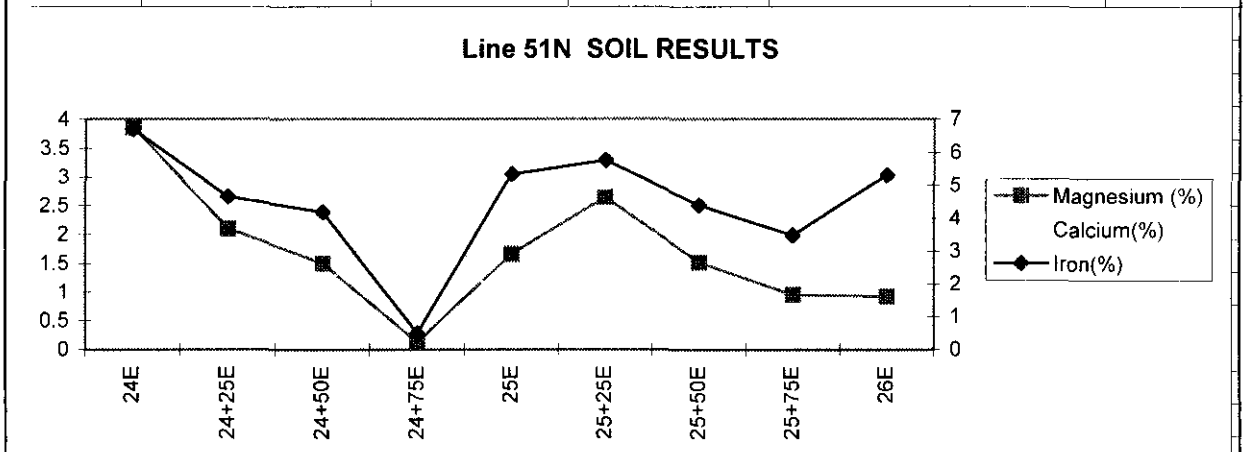


Line 49N: Soil Results

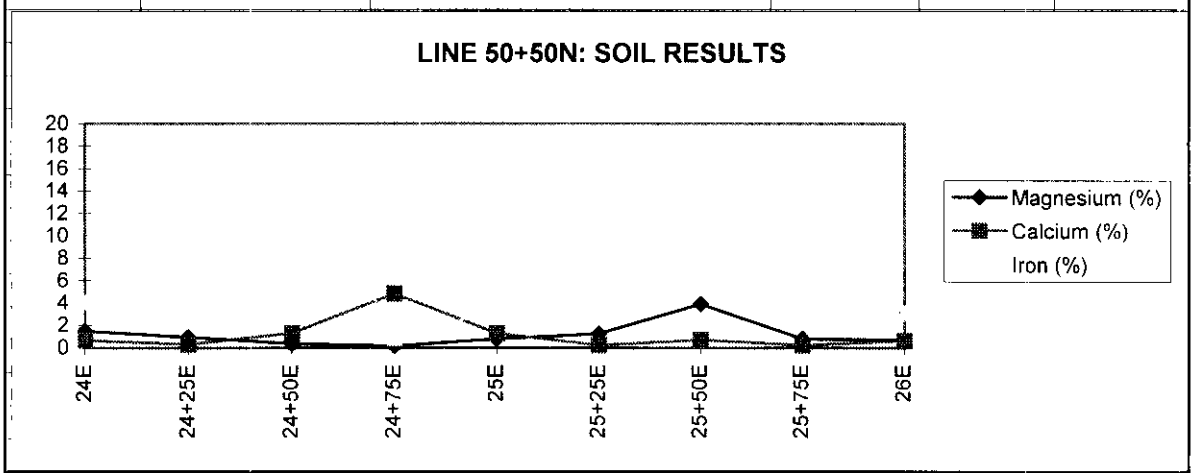
	Copper	Arsenic	Zinc	Barium
24E	28	21	137	218
24+25E	68	5	115	313
24+50E	173	20	107	250
24+75E	12	8	61	117
25E	22	12	104	105
25+25E	28	16	73	142
25+50E	32	7	80	154
25+75E	25	3	72	96
26E	31	18	112	168



Line 51N: Soil Results			
	Magnesium (%)	Calcium(%)	Iron(%)
24E	3.86	0.7	6.7
24+25E	2.1	0.38	4.64
24+50E	1.5	1.01	4.17
24+75E	0.12	3.00	0.49
25E	1.66	0.34	5.33
25+25E	2.64	0.2	5.75
25+50E	1.52	0.23	4.39
25+75E	0.95	0.42	3.47
26E	0.92	0.32	5.3

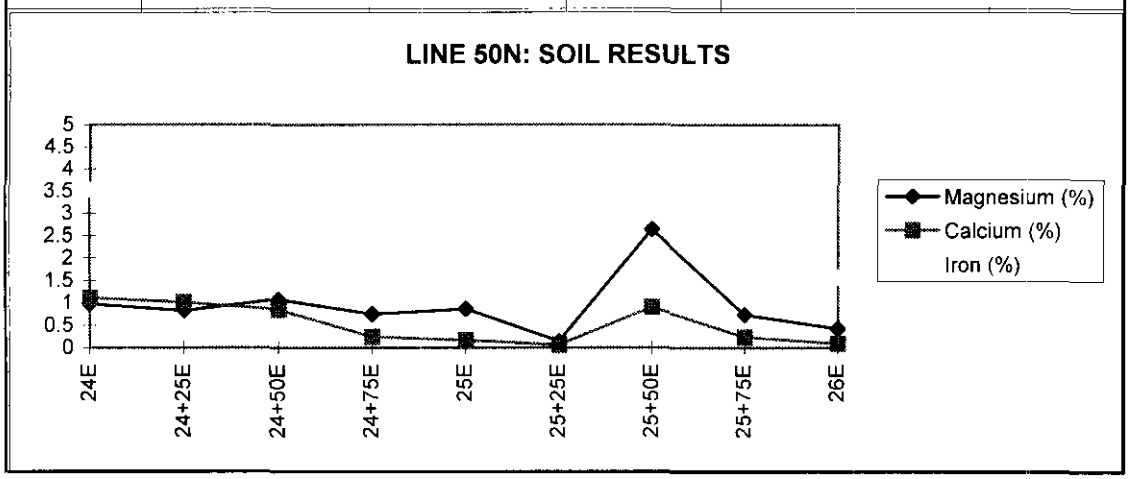


Line 50+50N: Soil Results						
	Magnesium (%)	Calcium (%)	Iron (%)			
24E	1.47	0.63	4.1			
24+25E	0.92	0.3	3.72			
24+50E	0.33	1.3	19			
24+75E	0.13	4.82	0.81			
25E	0.78	1.25	3.36			
25+25E	1.22	0.19	3.35			
25+50E	3.88	0.68	6.67			
25+75E	0.76	0.21	3.18			
26E	0.65	0.6	3.09			



Line 50N: Soil Results

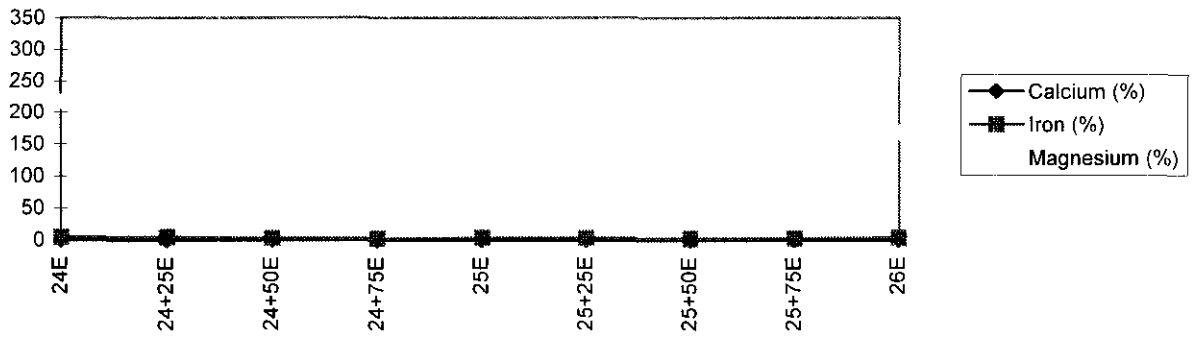
	Magnesium (%)	Calcium (%)	Iron (%)
24E	0.97	1.11	3.52
24+25E	0.82	1.01	3.45
24+50E	1.07	0.84	4.29
24+75E	0.74	0.24	2.63
25E	0.86	0.16	3.56
25+25E	0.14	0.06	1.19
25+50E	2.64	0.9	4.76
25+75E	0.73	0.23	3.16
26E	0.42	0.09	1.56



Line 49N: Soil Results

	Calcium (%)	Iron (%)	Magnesium (%)
24E	0.36	5.13	218
24+25E	0.74	5.16	313
24+50E	0.97	3.01	250
24+75E	0.22	2.29	117
25E	0.27	3.56	105
25+25E	0.25	2.93	142
25+50E	0.42	2.34	154
25+75E	0.46	3.09	96
26E	0.42	3.99	168

LINE 49N: SOIL RESULTS



Line 49+50N: Soil Results			
	Magnesium (%)	Calcium (%)	Iron (%)
24E	3.03	0.59	4.42
24+25E	4.97	1.55	9.86
24+50E	1.96	0.69	4.67
24+75E	0.63	0.19	2.33
25E	0.51	0.12	2.84
25+25E	3.31	0.55	5.27
25+50E	4.69	0.47	6.5
25+75E	1.12	0.38	3.43
26E	0.77	0.32	3.13