ARCHER, CATHRO
& ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS

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ASSESSMENT REPORT

094147

comprised of

A COMPILATION OF HISTORICAL

GEOLOGICAL AND GEOCHEMICAL SURVEYS

on the

POT CLAIMS

Pot 1-56 YB92506-YB92561

NTS 105I/12
Latitude 62°36'N and Longitude 129°35'W

in the

Watson Lake Mining District
Yukon Territory

Prepared by

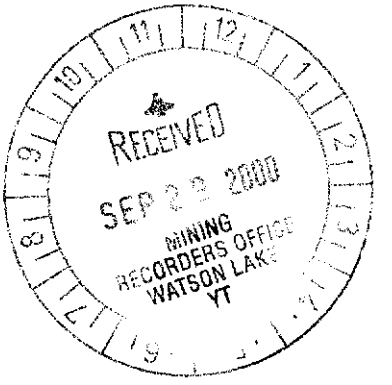
Archer, Cathro & Associates (1981) Limited

for

EXPATRIATE RESOURCES LTD.

by

R.C. Carne, M.Sc., P.Geo.
September, 2000



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This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 3600.00.

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

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CONCLUSIONS AND RECOMMENDATIONS

Expatriate Resources Ltd. owns a 100% interest in the Pot 1-56 claims in the Howards Pass District along the Yukon side of the Yukon-Northwest Territories border. The adjacent Howards Pass property of Copper Ridge Explorations Inc. and Billiton Metals Canada Inc. hosts two economically significant sedimentary exhalative zinc-lead deposits as well as a number of other showings. These occur within a laterally extensive mudstone, limestone and chert exhalite horizon called the Active Member (part of the Ordovician Duo Lake Formation of the Road River Group). The Pot claims were staked by Expatriate Resources Ltd. in September 1999 to cover a fold repeat of the Duo Lake stratigraphy that hosts the nearby OP Zone mineralization at the north end of the Howards Pass property.

Extensive geochemical sampling was carried out in the 1970's in the area of the present Pot claims. This data has been compiled and it is presented here along with the results of orientation geochemical surveys that were carried out by Archer, Cathro & Associates Limited in 1976 over the nearby OP Zone and Anniv Deposit on the Howards Pass property.

Geochemical response over the OP and Anniv mineralized horizons is erratic and subdued, at best. The two areas are both represented by very strong silt geochemical anomalies (for zinc and lead) but the soil geochemical response is generally spotty and of a low tenor. This is due to poor geochemical dispersion caused by a combination of non-pyritic zinc and lead sulphide mineralization in calcareous rocks that are obscured by unusually clay rich glacial till.

The northwest end of the Pot claims was explored with detailed soil sampling by Dynasty Explorations Ltd. in 1973. A 1.5 km^2 area located on Pot claims 31 to 35 and 56 returned significant anomalies of lead and zinc, especially in comparison with the results of similar sampling over the OP Zone and the Anniv Deposit. Furthermore, silt geochemical response at the upslope edge of the Pot claim anomaly is very anomalous and, in fact, it is stronger than silt geochemical response from the OP and Anniv Zones.

The Pot claims cover a 5.6 km strike length of prospective Duo Lake Formation and the soil geochemical anomalies, specifically, lie on the extrapolated fold repetition of the OP Zone. No bedrock exposure is apparently present to confirm this hypothesis although both property-scale mapping by a number of previous operators as well as regional mapping by the Geological Survey of Canada suggests that this is the case.

The Pot claims warrant further exploration for sedex zinc-lead mineralization especially in light of renewed exploration and development on the adjacent Howards Pass property. As an initial step, permission should be sought to carry out additional orientation geochemical surveys over the nearby OP and Anniv mineralization. For instance, to overcome the apparent poor geochemical dispersion of this type of mineralization in the local physiographic setting, metal contents of the -30 mesh fraction of till samples should be determined by a multi-element ICP technique using a total extraction. This will reveal the detrital sulphide and oxide mineral content of mineralization eroded from the bedrock source and incorporated into the local glacial overburden. If this technique gives better contrast and continuity than conventional geochemical analyses, then a complete and detailed geochemical sampling program should be carried out over the northwest Pot property to better define the exploration target outlined by previous workers.

Detailed geological mapping may be able to better define the Duo Lake Formation stratigraphy than previous workers were able to, especially in light of recent detailed stratigraphic studies carried out in the area by the Geological Survey of Canada.

Consideration should be also given to mechanized trenching of anomalous zones defined by the soil sampling survey. Structural geology of the relatively ductile shale-mudstone sequences in the Howards Pass area is notoriously more complicated than that of the resistant and relatively well exposed enclosing strata. Modest drill programs that were carried out in the area in the past as an initial test of geochemical anomalies have generally been unsuccessful because of an incomplete understanding of the bedrock structural geology. The property area is connected with a good airstrip at the XY Deposit by an established 30 km bulldozer trail. A small backhoe-equipped bulldozer could be delivered, in several pieces, to the XY airstrip by freighter aircraft, reassembled and walked to the Pot property to carry out the proposed trenching program.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

R.C. Carne, M.Sc., P.Geo.

INTRODUCTION

The Pot 1-56 claims are owned by Expatriate Resources Ltd. and are located in the Howards Pass District along the Yukon side of the Yukon-Northwest Territories border. The district hosts two known sedimentary exhalative zinc-lead deposits and a number of showings on the adjacent Howards Pass property that are associated with a laterally extensive exhalite horizon called the Active Member (part of the Ordovician Duo Lake Formation of the Road River Group). The Howards Pass property was recently acquired from Placer Dome (CLA) Limited and Cygnus Mines Limited by a joint venture between Copper Ridge Explorations Inc. and Billiton Metals Canada Inc. The Pot claims were staked by Expatriate Resources in September, 1999 to cover a fold repeat of the Road River carbonaceous mudstone, shale and chert stratigraphy that hosts the nearby OP Zone mineralization at the north end of the Howards Pass property.

The present report is a compilation of existing historical geological and geochemical data for the Pot claims area both from the public domain (GSC reports and assessment reports) as well as private, previously unpublished data from the files of Archer, Cathro & Associates (1981) Limited which has previously conducted detailed regional exploration in the area for other clients. Although no original field work has been conducted on the current Pot property, the author has personally conducted mineral exploration within the area of the claim group in 1977 and in 1994.

The Author's Statement of Qualifications is included as Appendix I.

PROPERTY, LOCATION AND ACCESS

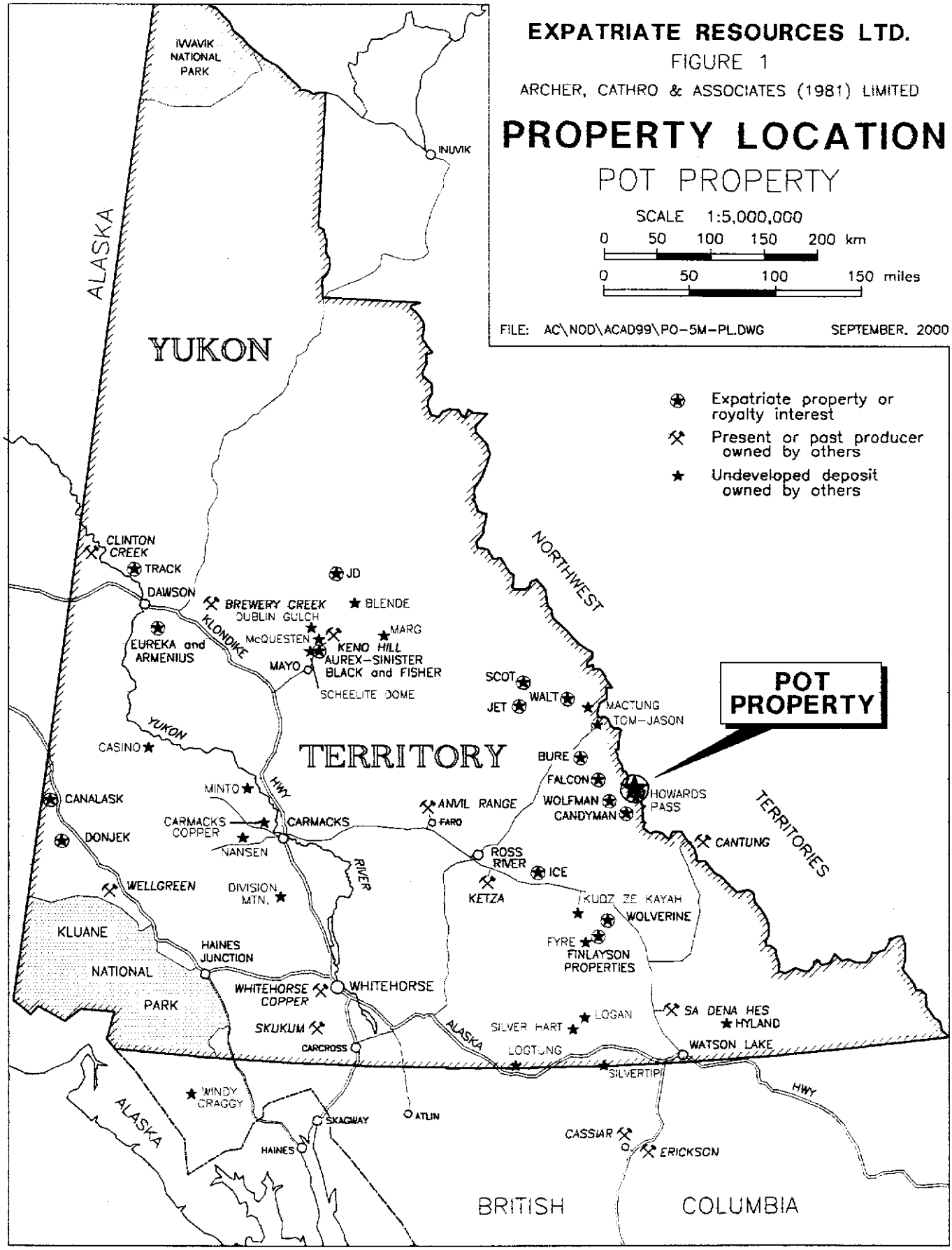
The Pot claims are located on the Yukon-Northwest Territories border, just south of the Pelly River headwaters at latitude 62°36'N and longitude 129°35'W on NTS map sheet 105I/12 (Figure 1).

The property consists of 56 mineral claims (Figures 2 and 3) registered with the Watson Lake Mining Recorder in the name of Archer, Cathro & Associates (1981) Limited which holds them in trust for Expatriate Resources Ltd. Claim registration data are listed below.

Claim Name	Grant Number	Expiry Date*
Pot 1-56	YB92506-YB92561	September 28, 2001

*Expiry date includes assessment work which has been filed but not yet accepted for credit.

In 1977 a 50 km winter access road was built to the XY Deposit (30 km south of the Pot claims) from Flat Lakes and the Cantung road, part of the Yukon Highway system. Washouts have rendered this road impassable even to four-wheel drive vehicles. A bulldozer tote trail from the XY Deposit to the OP Zone of the Howards Pass property passes within a kilometre of the Pot claim block. An airstrip serves the nearby Anniv Deposit but its condition is unknown. The nearest communities are Watson Lake, 275 km to the south and Ross River, 170 km to the northwest. Access to the property area in the past has been by helicopter.


EXPATRIATE RESOURCES LTD.
FIGURE 1
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
PROPERTY LOCATION
POT PROPERTY
SCALE 1:5,000,000
0 50 100 150 200 km
0 50 100 150 miles
FILE: AC\NOD\ACAD99\PO-5M-PL.DWG
SEPTEMBER, 2000
Expatriate property or royalty interest
Present or past producer owned by others
Undeveloped deposit owned by others
POT PROPERTY
IVVAVIK NATIONAL PARK
INUVIK
ALASKA
YUKON
TERRITORY
NORTHWEST
TERRITORIES
CLINTON CREEK
TRACK
DAWSON
JD
BREWERY CREEK
DUBLIN GULCH
BLENDE
KLONDIKE
EUREKA and ARMENIUS
McQUESTEN
MARG
KENO HILL
AUREX-SINISTER
BLACK and FISHER
MAYO
SCHEELITE DOME
SCOT
JET
WALT
MACTUNG
TOM-JASON
HOWARDS PASS
BURE
FALCON
WOLFMAN
CANDYMAN
CANTUNG
CASINO
YUKON
MINTO
HWY
CANALASK
DONJEK
CARMACKS COPPER
CARMACKS
NANSEN
ANVIL RANGE
FARO
ROSS RIVER
ICE
KETZA
KUDZ ZE KAYAH
WOLVERINE
FYRE
FINLAYSON PROPERTIES
WELLGREEN
DIVISION MTN.
RIVER
KLUANE NATIONAL PARK
HAINES JUNCTION
WHITEHORSE COPPER
WHITEHORSE
SKUKUM
CARCROSS
SA DENA HES
HYLAND
SILVER HART
LOGAN
LOGTUNG
SILVERTIP
WATSON LAKE
ALASKA
HWY
WINDY CRAGGY
SKAGWAY
ATLIN
HAINES
CASSIAR
ERICKSON
BRITISH
COLUMBIA

HISTORY

The mineral potential of the Howards Pass District was recognized after four years of reconnaissance mapping and sampling by Canex Aerial Exploration Ltd., a predecessor company of Placer Dome (CLA) Limited. Canex Aerial (then operating as Canex Placer Inc.) began extensive exploration on the XY Deposit in 1972. In 1975 Canex Placer entered into a joint venture with Cygnus Mines Limited. (a subsidiary of US Steel Corp.) to explore the Howards Pass District for additional deposits of zinc and lead. Subsequent exploration along strike to the northwest discovered the Anniv Deposit and OP Zone within the same stratigraphy. An adit was driven into the XY Deposit in 1980 and underground drilling was carried out in 1981. Aside from some environmental reclamation, no further work has since been carried out on the property. Copper Ridge Explorations Inc. recently negotiated an option to purchase the Howards Pass property from Placer Dome/Cygnus. Further to this, the company announced on September 5, 2000 that Billiton Metals Canada Inc. had been brought in as a joint venture partner. A diamond drill was mobilized by the joint venture to the Anniv Deposit on September 19, 2000.

The area now covered by the Pot claims was held by a number of junior companies that staked all the fringe ground around the Howards Pass property in the spring of 1973. These included the Pb claims (Tanzilla Explorations Ltd.), the Un and Nor claim blocks (Vestor Explorations Ltd.), the Prevo claims (Dynasty Explorations Limited) and the Bea and Dop properties (Makaoo Development Co. Ltd.). All were explored with geochemical sampling and geological mapping the same year. The Pot property area was again restaked as the Ohno claims in 1977 by Itsi Joint Venture (Union Oil Co. of Canada Ltd., Aquitaine Co. of Canada Ltd. and St. Joseph Exploration Ltd.) as part of a two year program of regional exploration for shale-hosted mineralization in Selwyn Basin of Yukon and adjacent Northwest Territories. An orientation geophysical survey was carried out on the property in 1978 but the Max-Min technique used was unable to differentiate between conductors due to massive sulphide mineralization and conductors due to extremely graphitic host rocks (Cathro and Hendrickson, 1978).

PHYSIOGRAPHY AND GEOMORPHOLOGY

The Pot property is situated along the western margin of the Selwyn Mountains. Within the core of this range, peaks commonly reach elevations of greater than 2000 m and locally greater than 3000 m. With the exception of the higher peaks, local relief is about 600 to 700 m or less and terrain is relatively subdued and gentle. Main valleys within the central part of the range are U-shaped with truncated spurs below elevations of about 1800 m. Valleys in low areas along the edge of the range are generally broad and poorly defined. The Pot claims are situated below timberline along the southwest side of a wide glaciated valley where local relief is less than 100 m.

The region has been covered by two or more continental ice sheets that reached a minimum elevation of about 2000 m. Younger, less extensive valley and alpine glaciers also covered much of the area. Small glaciers still occur on some of the higher peaks in the area, notably the Itsi Range and Keele Peak.

Glacial deposits in the Howards Pass District tend to be rather thin and discontinuous in the mountains and are most common on the floors of the main valleys. Above timberline, particularly in places where the effects of younger glaciation are weak or absent, fissile rocks such as shale have been severely frost shattered into fine felsenmeer and talus. The Pot property, for the most part, lies at lower elevations and it is covered with an extensive blanket of lodgment till which varies from a few metres to several tens of metres thick. Outcrop occurs along widely spaced stream cuts where overburden is thinnest, accounting for less than one percent of the total area.

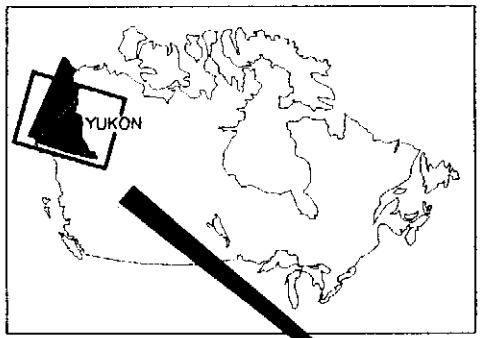
Frozen ground can be encountered at relatively shallow depths in this area until mid to late summer. This, coupled with a post-glacial volcanic ash layer that locally ranges up to 8 to 10 cm thick, can provide impediments to effective geochemical sampling.

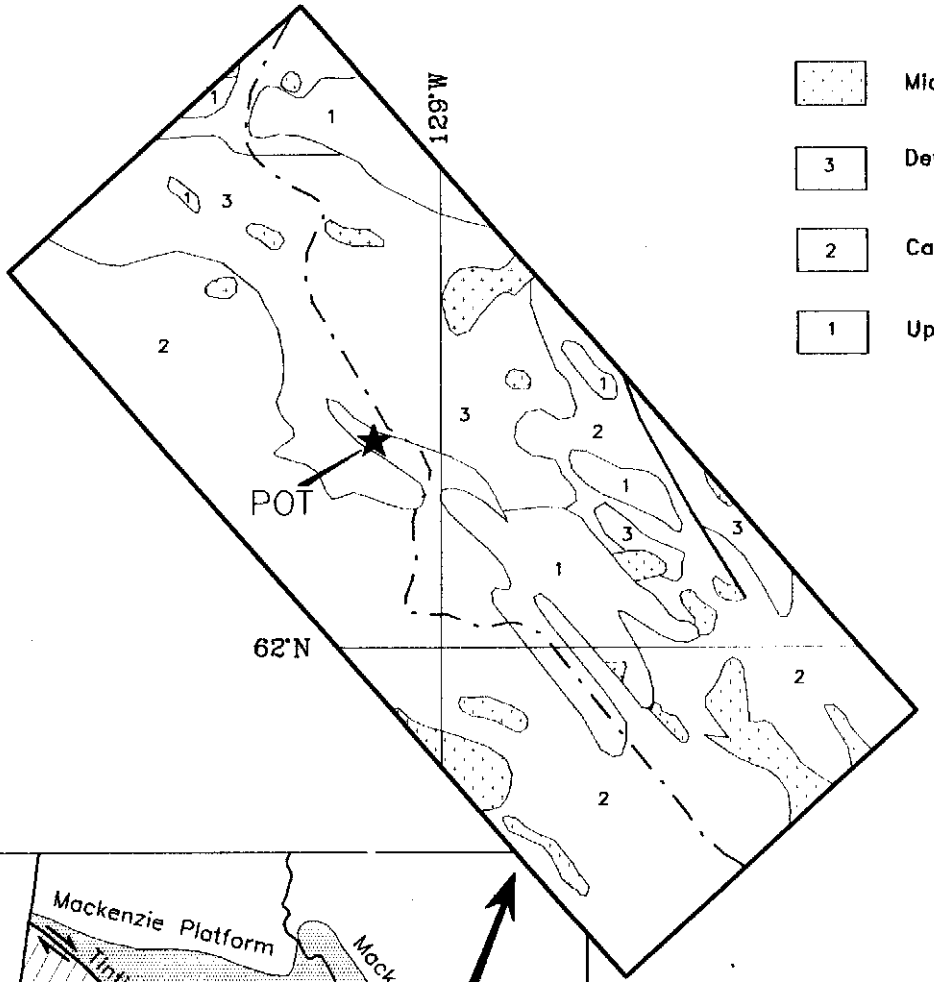
REGIONAL GEOLOGY

The Howards Pass District lies within Selwyn Basin, a northwest trending belt of deep water off-shelf sedimentation that was present along the west edge of ancestral North America from Lower Ordovician to Lower Devonian time. This elongate depositional trough stretches from the Yukon-Alaska border to northeast British Columbia and is bounded to the north and east by Mackenzie Platform, to the south by Macdonald Platform and to the west by Cassiar Platform and the Tintina Fault Zone (Figure 4).

Selwyn Basin stratigraphy overlies a basement of Upper Proterozoic to Lower Cambrian shale, siltstone and sandstone that were derived primarily from igneous and metamorphic sources on the North American Craton. This unit is conformably overlain in the Howards Pass District by massive to wavy banded limestone of the Upper Cambrian to Lower Ordovician Rabbitkettle Formation. The limestone is, in turn, overlain by the Ordovician to Silurian Road River Group that is subdivided into the Duo Lake and Steel Formations. Duo Lake Formation stratigraphy consists of carbonaceous to siliceous shale, cherty mudstone, limestone and chert while the overlying Steel Formation is a distinctive orange weathering, resistant, bioturbated mudstone. From Lower Devonian to Middle Mississippian time, Earn Group turbiditic chert rich, clastic rocks were deposited as detritus shed from uplifted portions of west and central Selwyn Basin. Middle to Late Cretaceous granitic bodies of the Selwyn Plutonic Suite intrude all lithologies. They are responsible for localization of tungsten skarns (notably at Cantung and Mactung) as well as intrusive hosted and hornfels gold vein and stockwork mineralization in the Macmillan Pass area (Gordey and Anderson, 1993).

Extensional tectonism and rifting in the Howards Pass region was initiated in Middle Ordovician time. This is marked by the transition from shallow water deposition of the Rabbitkettle Formation limestone to the basinal Duo Lake Formation shale. Active tectonism in Selwyn Basin continued throughout the Paleozoic with deposition of the clastic Earn Group sequence. Early Cretaceous northeast-southwest compression led to northwest trending decollement style folds and minor thrusts (Gordey and Anderson, 1993). The regional metamorphic grade in the sedimentary rocks is lower greenschist facies.





Mid-Cretaceous granitic intrusions

3 Devonian-Mississippian clastic sediments

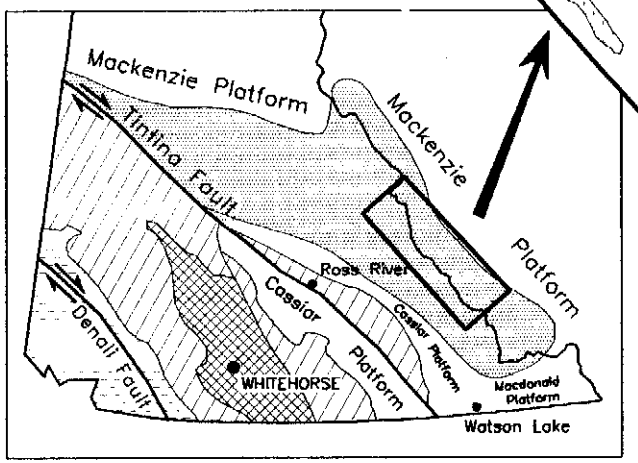
2 Cambrian Devonian basin shales, shelf carbonate sediments

1 Upper Proterozoic clastic sediments

SCALE 1:2,000,000

0 50

km



Coastal and Insular Belts

Intermontane Belt

Yukon-Tanana Terrane and Slide Mountain Terrane

Selwyn Basin

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FIGURE 4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

REGIONAL GEOLOGY

POT PROPERTY

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ECONOMIC GEOLOGY OF THE HOWARDS PASS DISTRICT

The Howards Pass District hosts three large sub-basin, platform-marginal stratiform zinc-lead sedex deposits (Figure 5). Geochemical data suggests that additional deposits remain to be discovered along the 35 km long stratigraphic trend. The entire area of favourable stratigraphy is currently held by three groups. The XY, Anniv and OP mineralized zones that form the nucleus of the Howards Pass properties were developed by Placer Dome and Cygnus Mines (US Steel). The Howards Pass property was recently acquired by a joint venture between Copper Ridge Explorations Inc. and Billiton Metals Canada Inc. The HP, Nod and Pot properties are owned by Expatriate and the CMC property is owned by Cominco Ltd.

The XY and Anniv Deposits have an indicated geological resource of 110.5 million tonnes grading 7.7% combined zinc and lead plus an inferred resource in excess of 374 million tonnes (Copper Ridge Explorations Inc., July 6, 2000 News Release; Ditson, 1994). Advanced exploration has modelled the XY and Anniv Deposits and the OP Zone as probably occurring in separate sub-basins along the base of a paleoslope (Morganti, 1979). The Anniv Deposit is approximately 22 km northwest of the XY Deposit while the OP Zone lies a further 9 km along strike. To date the areas between the deposits have not been drilled to determine if other mineralized sub-basins are present.

XY Deposit

The XY Deposit occurs on the southwestern limb of a syncline that extends onto the Nod Property. Most of the deposit lies beneath a ridge which parallels the northwest-southeast trending fold axis. Dimensions of the deposit, as defined to date, are 7.5 km in a northwest-southeast direction by 2.5 km across the syncline or about 5 km wide if the deposit is unfolded. Indicated resource estimates for the deposit are 55 million tonnes of 8.26% combined zinc and lead. In addition, inferred estimates include 113 million tonnes of a similar grade.

Relatively deep drilling in 1976 returned spectacular results from what is probably a higher grade core of the deposit toward the keel of the syncline. Hole 76-66 intersected 10.7 m containing 20.0% zinc and 16.1% lead at a depth of 242 m while hole 76-80 intersected 7.6 m grading 25.0% zinc and 3.1% lead at a depth of 329 m. A higher grade core of eight million tonnes grading 10.6% zinc and 5.5% lead is reported to exist within the XY Deposit (Ditson, 1994).

Anniv Deposit

The Anniv Deposit occurs within a complexly folded and faulted stratigraphic sub-basin that is truncated abruptly to the north by a fault. Drilling consisted of 64 holes totalling approximately 12,500 m which were drilled within the 4 km long, 350 m wide area of known mineralization. The indicated resource for this deposit is 55.5 million tonnes of 7.07% combined zinc and lead. Inferred resource estimates for the Anniv Deposit are 261 million tonnes of a similar grade (Ditson, 1994).

OP Zone

The OP Zone hosts two surface showings within a 1500 m assumed strike length of the Active Member stratigraphy. Nine holes were drilled between the two surface showings. Poor ground conditions were reported as the reason why only two of the nine holes were completed to planned depth. One hole returned 4.7 m of 5.13% combined zinc and lead while the other hole intersected only barren limestone (Ditson, 1994). The OP Zone is open along strike to the northwest and downdip to the southwest.

HP Property

The HP property covers the northeastern limb of the mineralized syncline hosting the XY Deposit (Figure 5). In 1974, four drill holes totalling 504 m were drilled over a 1600 m strike length of Active Member stratigraphy. Hole 74P-1 intersected 6.1 m of 2.7% zinc and 1.0% lead while 74P-2 intersected 6.1 m of 2.9% zinc and 0.8% lead (Adamson, 1974). Although values are lower than those encountered within the XY Deposit, there remains good potential for higher grades down dip toward the core of the syncline.

PROPERTY GEOLOGY

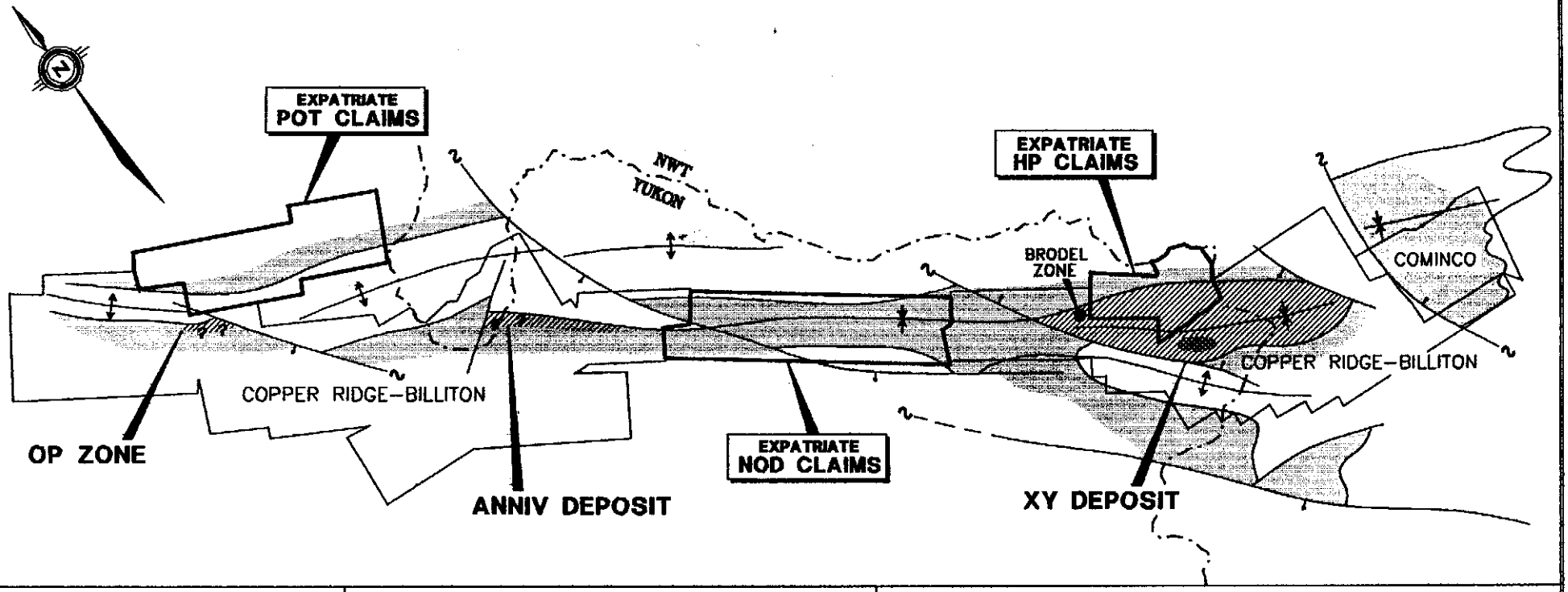
The Pot property is underlain by four stratigraphic packages, as shown on Figures 6 and 7 and Table 1. These are:

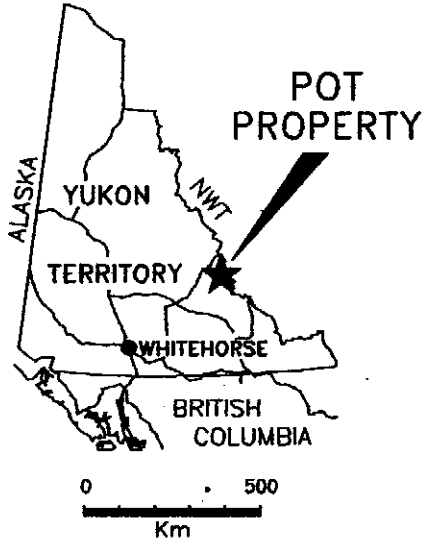
- Rabbitkettle Formation limestone;
- Duo Lake Formation siliceous, calcareous and graptolitic shales, cherty mudstone, chert and limestone;
- Portrait Lake Formation shale and chert; and,
- Prevost Formation shale and sandstone.

Bedrock exposure on the Pot property probably amounts to less than 5% and most of this is formed of resistant strata of the Rabbitkettle and Prevost Formations. The target Duo Lake Formation is recessive and natural exposures of the unit are very rare. Consequently, structural geology of the Pot property as shown on the accompanying maps is largely conjectural and it is, at best, drawn from bedding attitudes in resistant units that are not of exploration interest. Nonetheless, both detailed mapping by previous operators as well as regional-scale mapping by the Geological Survey of Canada demonstrate that the Pot claims overlie the east limb of an anticline that repeats the Duo Lakes Formation stratigraphy host of the nearby OP Zone.

Rabbitkettle Formation

The oldest strata on the Pot property belong to the Upper Cambrian and Lower Ordovician Rabbitkettle Formation (Unit CO_R). This unit comprises thin bedded and laminated, finely crystalline, nodular, blue-grey limestone. It weathers to a distinctive thin bedded "wavy banded" appearance with alternating light grey and light brown beds, the latter forming distinctive flat pebble-like fragments where they are disrupted by axial plane cleavage. Rabbitkettle Formation stratigraphy is exposed in the core of an anticline along the south edge of the property.





ANOMALOUS ROAD RIVER SHALES
(UNEXPLORED POTENTIAL)

MINERALIZED ZONE
(2–10% Pb+Zn/3m)

MINERALIZED HIGH GRADE
CORE ZONE
(10–50% Pb+Zn/10m)

SYNCLINE AXIS

ANTICLINE AXIS

FIGURE 5

EXPATRIATE RESOURCES LTD.

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HOWARDS PASS ZINC-LEAD DISTRICT

POT PROPERTY

0 1 2 3 4 5km

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SEPTEMBER, 2000

Duo Lake Formation

Duo Lake Formation lithologies (undivided Unit OS_D) unconformably overlie the Rabbitkettle Formation. At Howards Pass it is broken down into the informally named Lower Shale Unit, Active Member and Siliceous Shale Unit.

The Lower Shale Unit comprises primarily recessive, calcareous to siliceous, dark grey to black shale with minor thin bedded chert. Silica content of the shales increases upsection as carbonate content decreases.

The Active Member is the most economically significant lithology in the Howards Pass District because it hosts the zinc and lead deposits. Stratigraphy primarily comprises intercalated mudstone, limestone and chert with a general trend toward increasing silica and decreasing carbonate upsection. Sulphide mineralization consists of fine grained sphalerite, galena and minor pyrite. Mineralization occurs most commonly in the upper and middle sections of this heterogeneous package. There are eight different lithological facies within the Active Member (Table 2) but their thickness, position within the sequence and number of repetitions within the sequence are highly variable. Rapid changes in facies are best explained by disruptions of beds by soft sediment slumping or later structural displacement. Correlations between detailed lithological units within the Active Member are difficult (House, 1980).

The Siliceous Shale Unit consists of light grey to black weathering, recessive graptolitic black shale, with chert and minor fine crystalline limestone.

TABLE 1
PROPERTY STRATIGRAPHY
(after House, 1980 and Gordey, 1992)

DEVONIAN AND MISSISSIPPIAN
UPPER EARN GROUP

UPPER DEVONIAN TO MIDDLE MISSISSIPPIAN
PREVOST FORMATION: brown weathering shale, minor chert-quartzite sandstone (DMp)

LOWER EARN GROUP
LOWER TO UPPER DEVONIAN
PORTRAIT LAKE FORMATION: dark to light grey, tan and bluish white weathering, dark grey to black, carbonaceous to siliceous shale and thin bedded chert (Dp)

ORDOVICIAN AND SILURIAN
ROAD RIVER GROUP

LOWER ORDOVICIAN TO MIDDLE SILURIAN
DUO LAKE FORMATION (undivided Unit OS_D)

Siliceous Shale Unit: light grey to black weathering, recessive graptolitic black shale with chert and minor fine crystalline limestone

Active Member: intercalated mudstone, limestone and chert; sulphide mineralization consists of fine grained sphalerite, galena and minor pyrite

Lower Shale Unit: recessive, calcareous to siliceous, dark grey to black shale with minor thin bedded chert

CAMBRIAN AND ORDOVICIAN

UPPER CAMBRIAN AND LOWER ORDOVICIAN
RABBITKETTLE FORMATION: alternating light grey and light brown weathering, thin bedded to laminated, fine crystalline nodular blue-grey limestone (CO_R)

TABLE 2
STRATIGRAPHY OF AN IDEALIZED CYCLE WITHIN THE ACTIVE MEMBER AT HOWARDS PASS
(from Morganti, 1974)

Grey Chert - light grey laminated chert

Whitish Grey Zinc-Lead Mudstone - "Sulphidite" - light grey laminated chert with up to 50% zinc and lead present as sphalerite and galena plus up to 5% framboidal pyrite; water escape structures are common

Thin Bedded Cherty Mudstone - mixture of fine grained sulphide rich mudstone laminae, soft sediment slumping structures are common, grades up to 25% zinc and lead

Cherty Mudstone - dark grey to black siliceous carbonaceous mudstone, a more siliceous variant of "Thin Bedded Cherty Mudstone", lacking limestone laminae but may contain sulphides in both mudstone and chert laminae, grades up to 25% zinc and lead

Mixed Cherty Mudstone and Limestone - cherty mudstone and light grey basal limestone, contacts between lithologies are sharp and crosscutting

Thin Bedded Calcareous Mudstone - laminated calcareous and carbonaceous mudstone, laminae contain framboidal pyrite and/or sphalerite with traces of galena, slump structures are abundant

Thin Bedded Calcareous Mudstone - laminated calcareous and carbonaceous mudstone, laminae contain framboidal pyrite and/or sphalerite with traces of galena, slump structures are abundant

Graded Limestone - laminated limestone with carbonaceous material on top of laminae

Light Grey Basal Limestone - light grey laminated limestone with up to 35% mudstone

PROPERTY GEOCHEMISTRY

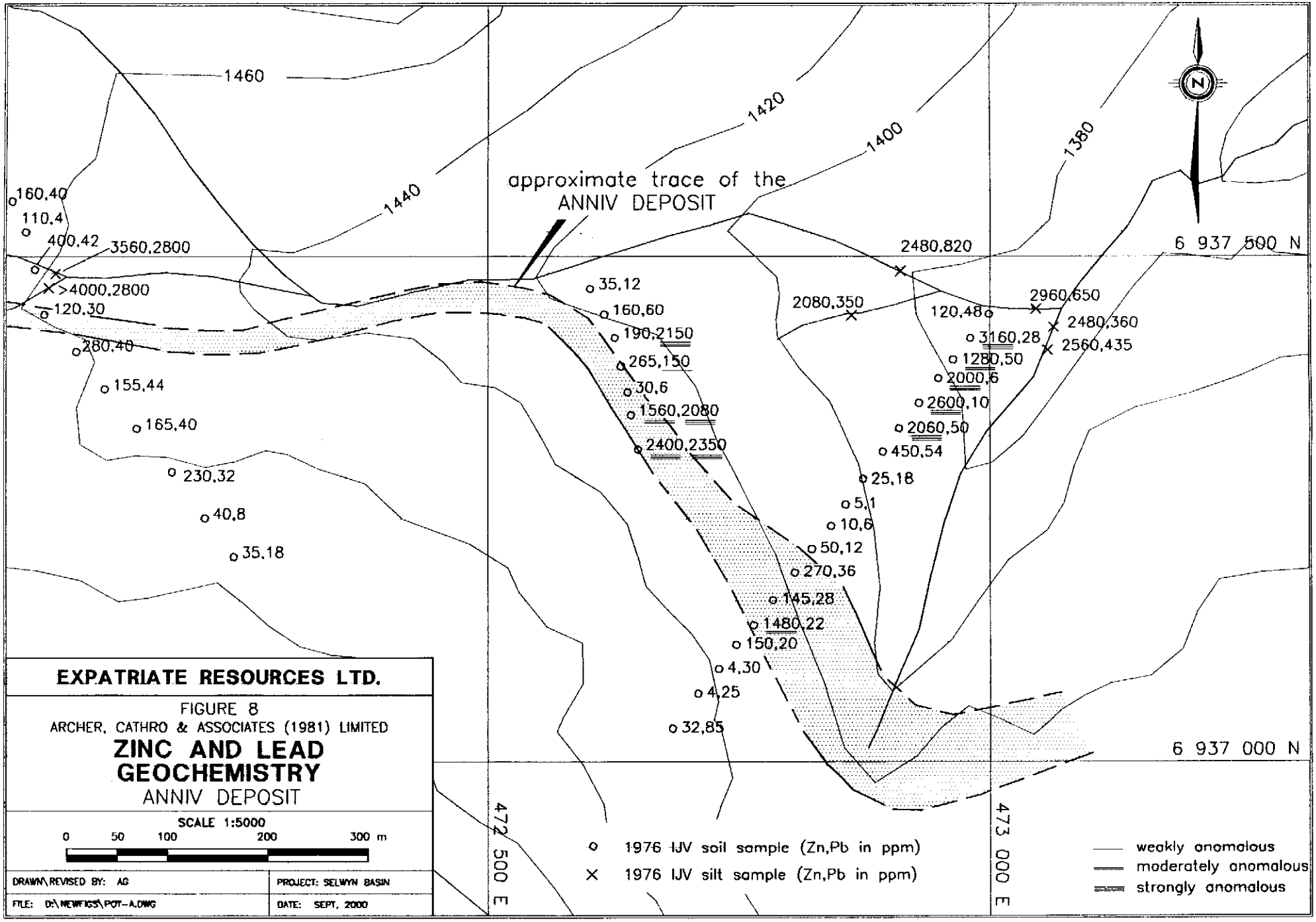
An orientation geochemical survey was carried out by Itsi Joint Venture (Cathro and Abbott, 1976) over the Anniv Deposit with Canex Placer's permission. The mineralized zone lies several kilometres southeast of the Pot claims in a very similar stratigraphic and physiographic setting. The Anniv mineralization is completely blanketed by a thin lodgment till layer just below timberline and it would normally be expected to produce an intense soil geochemical anomaly. Three lines of soil samples were collected at 30 m intervals across the mineralized trend (Figure 8) and silt samples were collected from streams draining the mineralized unit.

Silt response shows a dramatic contrast over background and ranges from 2080 to greater than 4000 ppm zinc and 435 to 2800 ppm lead. Zinc and lead response in soils however is spotty and subdued, with only a small percentage of the samples returning moderate to strong response (> 1000 ppm zinc and >200 ppm lead). The strongest zinc response occurs 150 to 300 m downslope of the Anniv Deposit in a swampy area. Lead values in this area are uniformly low and the zinc anomaly is probably therefore hydromorphically derived.

A one-line soil geochemical reconnaissance was also carried out over the OP Zone (Figure 9). Only weakly anomalous zinc values, at best, are present. Lead response is within background variability. Like the Anniv Zone, however, silt response is highly anomalous for both zinc and lead.

The reasons for the poor soil geochemical response over the Anniv Deposit are not clear. It is possible however that the constituent metals are inhibited from reaching the surface due to three factors.

- Firstly, the Howards Pass mineralization is typically non-pyritic or at best it carries only subordinate levels of pyrite. This characteristic does not promote the formation of metallic ions through oxidation and weathering of the sulphide ore minerals as is usually the case for most other types of base metal deposit.
- Secondly, the enclosing mudstones, shales and argillites are often calcareous or dolomitic and the resultant high pH environment further restricts the release and mobility of metals from bedrock.
- Thirdly, glacial tills in the Howards Pass area are derived largely from fine-grained clastic sedimentary rocks and they are very clay rich. This property further imposes barriers to the weathering and mobility of metals to the surficial environment where they can be detected by conventional soil geochemical surveys.


1460
1440
1420
1400
1380
approximate trace of the
ANNIV DEPOSIT
160,40
110,4
400,42
3560,2800
>4000,2800
120,30
280,40
155,44
165,40
230,32
40,8
35,18
35,12
160,60
190,2150
265,150
30,6
1560,2080
2400,2350
25,18
5,1
10,6
50,12
270,36
145,28
1480,22
150,20
4,30
4,25
32,85
2480,820
2080,350
120,48
2960,650
2480,360
3160,28
2560,435
1280,50
2000,6
2600,10
2060,50
450,54
6 937 500 N
6 937 000 N
472 500 E
473 000 E
1976 IJV soil sample (Zn,Pb in ppm)
1976 IJV silt sample (Zn,Pb in ppm)
weakly anomalous
moderately anomalous
strongly anomalous
EXPATRIATE RESOURCES LTD.
FIGURE 8
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
ZINC AND LEAD
GEOCHEMISTRY
ANNIV DEPOSIT
SCALE 1:5000
0 50 100 200 300 m
DRAWN\REVISED BY: AG
PROJECT: SELWYN BASIN
FILE: D:\NEWFIGS\POT-A.DWG
DATE: SEPT, 2000

Zinc and lead values for the various historical geochemical surveys over the area of the present Pot claims are presented on Figures 9 and 10. The soil sample density varies from wide-spaced, reconnaissance-scale along claim or compass lines to detailed, close-spaced grid sampling. Despite this, the existing geochemical coverage is adequate to provide an overview of the economic potential of the property. Analytical techniques for the various surveys are summarized below.

Survey	Analytical Technique
Makaoo Development	-80 mesh/ partial perchloric acid extraction/ AA analysis
Vestor Explorations	mesh size not given/ total extraction/ technique not given
Tanzilla Explorations	analytical method not stated
Dynasty Explorations	-80 mesh/ partial perchloric acid extraction/ AA analysis
Itsi Joint Venture	-80 mesh/partial nitric-perchloric acid extraction/ AA analysis

Because there is little likelihood of non-sulphide zinc and lead mineralization in the area of the property, the resultant difference between the various analytical techniques (especially total extraction versus partial extraction) is not expected to be significant.

Scattered low strength zinc soil geochemical anomalies are present across the entire 5.6 km long central part of the Pot claims that is underlain by the prospective Duo Lake Formation strata. The best potential for sedex zinc-lead mineralization, however appears to lie within a 1.5 km^2 area near the northwest corner of the property on the Pot 31 to 35 and 56 claims. Here, soil samples collected by Dynasty Explorations on 30 by 60 m spacing returned numerous anomalous zinc and lead values (up to 3600 ppm zinc and 210 ppm lead) with supporting copper response (up to 170 ppm). While these levels of anomaly are not especially encouraging in comparison to the geochemical signature of other Yukon base metal deposit types, they compare very well with the results of orientation surveys over the nearby Howards Pass property OP Zone and Anniv Deposit. Silt sample geochemical response in the same area is also strong. In fact, one Itsi Joint Venture 1977 silt sample from the uphill edge of the 1973 Dynasty soil grid returned values of 3950 ppm zinc and >4000 ppm lead. These are extremely anomalous and more so than results of any of the orientation silt samples taken downstream of the OP Zone and Anniv Deposit. The coincident soil and silt geochemical anomalies on the Pot property probably occur in an area underlain by recessive Duo Lake Formation mudstone, argillite and shale that host the OP Zone on the opposite, south limb of an anticline. Thus, when unfolded and restored to horizontal, the Pot claims soil geochemical anomaly lies only about 700 m from the present surface exposure of the OP Zone. Since the other more completely explored Howards Pass sedex deposits apparently exceeded 5 or 6 km in original depositional size it is conceivable that the Top anomaly reflects the lateral extension of what is already a significant exploration target.

Glacial ice direction in the Pot claim area was apparently to the west or northwest (Duk-Rodkin, 1999) however it is possible that local variation may have occurred and the Pot geochemical anomaly is the result of glacial erosion and dispersion of OP Zone mineralization to the northeast. However, the anomaly is unusually widespread and elongate in a northeast-southwest direction, parallel to stratigraphy, and it more likely reflects underlying in place mineralization.

Bedrock geology of the anomalous area on the Top claims is not clear. There are no exposures of the recessive strata and glacial till cover is extensive. A rough extrapolation of stratigraphic and structural data from outside the target area, however, indicates that the entire anomalous zone is underlain by prospective Duo Lake Formation lithologies. Furthermore, the apparent thickness of the formation is probably exaggerated by relatively numerous small-scale folds. Thus, the target Active Member may well be repetitively exposed or it may be present at shallow depths across the greater part of the northwest end of the Pot property.

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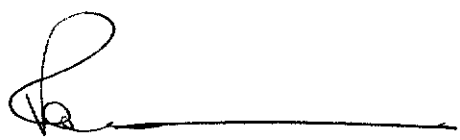
APPENDIX I

AUTHOR'S STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Robert C. Carne, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in Burnaby, British Columbia, hereby certify that:

1. I graduated from the University of British Columbia in 1974 with a B.Sc. and in 1979 with an M.Sc. majoring in Geological Sciences.
2. I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of the Province of British Columbia (registration number 19868).
3 From 1974 to present, I have been actively engaged as a geologist in mineral exploration in British Columbia and Yukon Territory and on June 1, 1981 became a partner of Archer, Cathro & Associates (1981) Limited.
4. I have personally visited the Pot claims area and have interpreted all data reported herein.



Robert C. Carne, M.Sc., P.Geo.

466 000 E

468 000 E

6 944 000 N

6 942 000 N

6 940 000 N

EXPATRIATE RESOURCES
POT PROPERTY

COPPER RIDGE–BILLITON
OP PROPERTY

1400

1800

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 56

TRUE NORTH
UTM GRID NORTH
MAGN. NORTH
σ 40°

094147

NTS 105–I–12
UTM ZONE 9
NAD 1927
CONTOUR INTERVAL 100m

EXPATRIATE RESOURCES LTD.

FIGURE 2
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CLAIM LOCATION

POT PROPERTY
WEST SHEET

SCALE 1:10,000
0 100 200 300 400 500m

DRAWN/REVISED BY: AG	PROJECT: SELWYN BASIN
FILE: D\NEWFIGS\PO-W-CL.DWG	DATE: SEPTEMBER, 2000

470 000 E

472 000 E

474 000 E

6 944 000 N

6 942 000 N

6 940 000 N

1500

1300

1200

1500

1400

1500

17

19

21

23

25

27

29

20

22

24

26

28

30

44

46

48

50

52

54

45

47

49

51

53

55

EXPATRIATE RESOURCES
POT PROPERTY

YUKON
NWT

COPPER RIDGE–BILLITON
OP PROPERTY

COPPER RIDGE–BILLITON
ANNIV PROPERTY

TRUE NORTH

UTM GRID NORTH

MAGN. NORTH

0° 40'

09414

NTS 105–I–12
UTM ZONE 9
NAD 1927
CONTOUR INTERVAL 100m

EXPATRIATE RESOURCES LTD.

FIGURE 3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CLAIM LOCATION

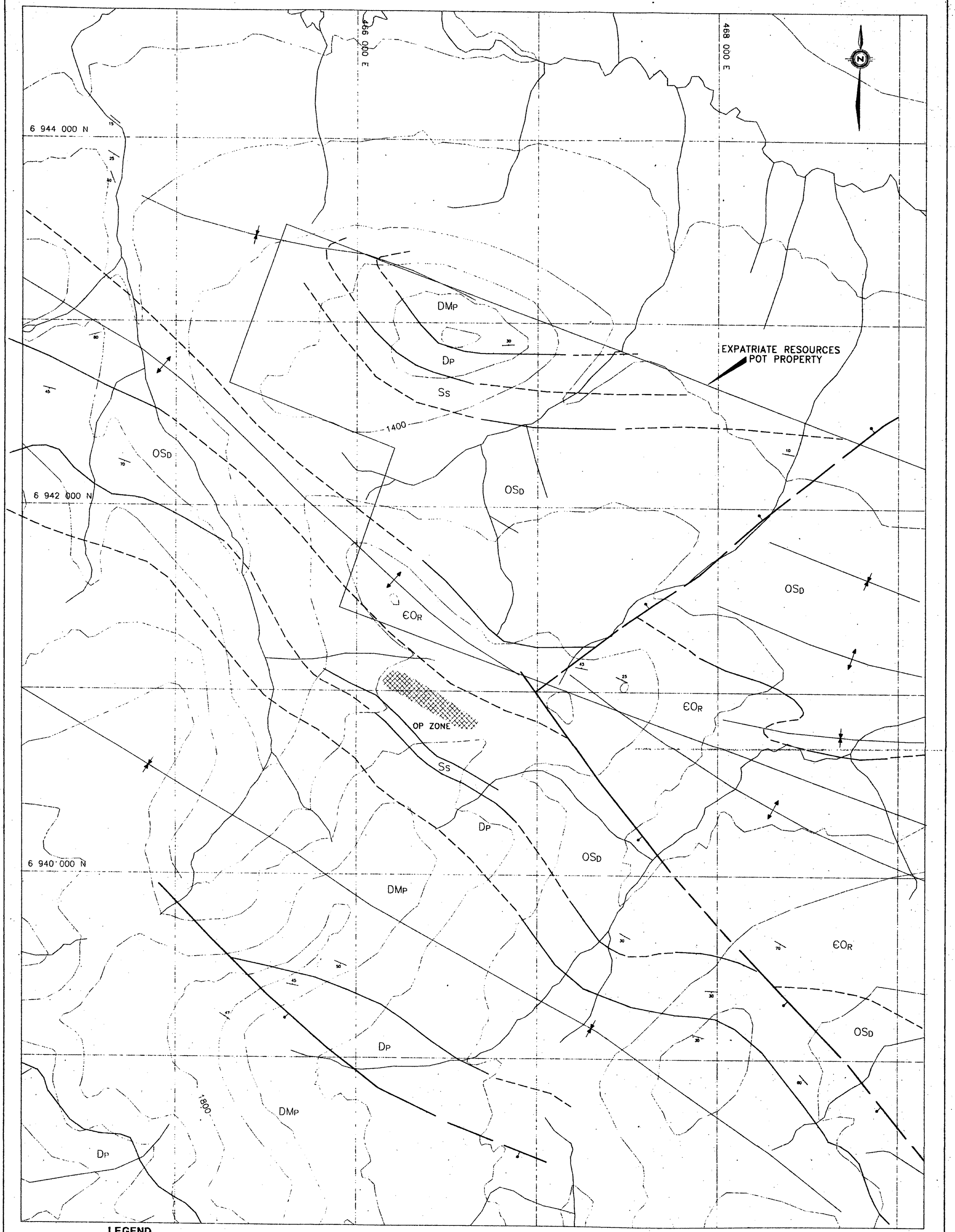
POT PROPERTY

EAST SHEET

SCALE 1:10,000

0 100 200 300 400 500m

DRAWN/REVISED BY: AG	PROJECT: SELWYN BASIN
FILE: D\AC\POT\PO-E-CL.DWG	DATE: SEPTEMBER, 2000



LEGEND

DEVONIAN AND MISSISSIPPIAN

UPPER EARN GROUP

UPPER DEVONIAN TO MIDDLE MISSISSIPPIAN

DMP — PREVOST FORMATION: brown weathering shale, minor chert–quartzite sandstone

LOWER EARN GROUP

LOWER TO UPPER DEVONIAN

DP — PORTRAIT LAKE FORMATION: dark to light grey, tan and bluish white weathering, dark grey to black, carbonaceous to siliceous shale and thin bedded chert

ORDOVICIAN AND SILURIAN

ROAD RIVER GROUP

UPPER SILURIAN

SS — STEEL FORMATION: orange weathering, resistant, thick bedded, dolomitic, pyritic, silty, burrowed, light blue–grey mudstone

LOWER ORDOVICIAN TO MIDDLE SILURIAN

OSD — DUO LAKE FORMATION: (undivided on Figures 6 and 7)

Siliceous Shale Unit: light grey to black weathering, recessive graptolitic black shale with chert and minor fine crystalline limestone

Active Member: intercalated mudstone, limestone and chert; sulphide mineralization consists of fine grained sphalerite, galena and minor pyrite

Lower Shale Unit: recessive calcareous to siliceous, dark grey to black shales with minor thin bedded chert

CAMBRIAN AND ORDOVICIAN

UPPER CAMBRIAN AND LOWER ORDOVICIAN

EOR — RABBITKETTLE FORMATION: alternating light grey and light brown weathering, thin bedded to laminated, fine crystalline nodular blue–grey limestone

- geological contact (defined, assumed)
- 50 — attitude of bedding
- mineralized area
- anticline axis
- syncline axis
- normal fault

TRUE NORTH
UTM GRID NORTH
MAGN. NORTH.
0° 40'

094147

NTS 105-I-12
UTM ZONE 9
NAD 1927
CONTOUR INTERVAL 100m

EXPATRIATE RESOURCES LTD.

FIGURE 6
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

PROPERTY GEOLOGY

POT PROPERTY
WEST SHEET

SCALE 1:10,000
0 100 200 300 400 500m

DRAWN/REVISED BY: AC	PROJECT: SELWYN BASIN
FILE: D\NEWFIGS\PO-W-GEO.DWG	DATE: SEPTEMBER, 2000

470 000 E
472 000 E
474 000 E
6 944 000 N
6 942 000 N
6 940 000 N
DP
DMP
OSD
1500
1300
1200
EXPATRIATE RESOURCES
POT PROPERTY
ECOR
YUKON
NWT
1400
COPPER RIDGE–BILLITON
ANNIV PROPERTY

LEGEND

DEVONIAN AND MISSISSIPPIAN

UPPER EARN GROUP

UPPER DEVONIAN TO MIDDLE MISSISSIPPIAN

DMP — PREVOST FORMATION: brown weathering shale, minor chert–quartzite sandstone

LOWER EARN GROUP

LOWER TO UPPER DEVONIAN

DP — PORTRAIT LAKE FORMATION: dark to light grey, tan and bluish white weathering, dark grey to black, carbonaceous to siliceous shale and thin bedded chert

ORDOVICIAN AND SILURIAN

ROAD RIVER GROUP

UPPER SILURIAN

SS — STEEL FORMATION: orange weathering, resistant, thick bedded, dolomitic, pyritic, silty, burrowed, light blue–grey mudstone

LOWER ORDOVICIAN TO MIDDLE SILURIAN

DUO LAKE FORMATION: (undivided on Figures 6 and 7)

OSD — Siliceous Shale Unit: light grey to black weathering, recessive graptolitic black shale with chert and minor fine crystalline limestone

Active Member: intercalated mudstone, limestone and chert; sulphide mineralization consists of fine grained sphalerite, galena and minor pyrite

Lower Shale Unit: recessive calcareous to siliceous, dark grey to black shales with minor thin bedded chert

CAMBRIAN AND ORDOVICIAN

UPPER CAMBRIAN AND LOWER ORDOVICIAN

ECOR — RABBITKETTLE FORMATION: alternating light grey and light brown weathering, thin bedded to laminated, fine crystalline nodular blue–grey limestone

geological contact (defined, assumed)

50 — attitude of bedding

mineralized area

anticline axis

syncline axis

normal fault

TRUE NORTH
UTM GRID NORTH
MAGN. NORTH
0° 40'

D94147

NTS 105–I–12
UTM ZONE 9
NAD 1927
CONTOUR INTERVAL 100m

EXPATRIATE RESOURCES LTD.

FIGURE 7
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

PROPERTY GEOLOGY

POT PROPERTY
EAST SHEET

SCALE 1:10,000
0 100 200 300 400 500m

DRAWN/REVISED BY: AG	PROJECT: SELWYN BASIN
FILE: D\AC\POT\PO-E-GEO.DWG	DATE: SEPTEMBER, 2000

466 000 E

468 000 E

EXPATRIATE RESOURCES
POT PROPERTY

DYNASTY
1973 GRID
30m x 60m soil samples
(only zinc anomalies shown–
see legend for explanation)

OP ZONE

COPPER RIDGE–BILLITON
OP PROPERTY

6 942 000 N

6 940 000 N

1400

1800

LEGEND

- Itsi Joint Venture 1976–77 soil sample
- Itsi Joint Venture 1976–77 silt sample
- GSC silt sample
- Vestor Explorations Ltd. 1973 soil sample
- Vestor Explorations Ltd. 1973 silt sample
- Dynasty Explorations 1973 detailed grid soil sample (weakly, moderately, strongly anomalous)

Zinc (ppm)	
136	≤ 500 ppm (background population)
832	500–999 ppm (weakly anomalous)
1516	1000–1999 ppm (moderately anomalous)
3300	≥ 2000 ppm (strongly anomalous)

Lead (ppm)	
38	≤ 99 ppm (background population)
178	100–199 ppm (weakly anomalous)
286	200–399 ppm (moderately anomalous)
417	≥ 400 ppm (strongly anomalous)

TRUE NORTH
UTM GRID NORTH
MAGN. NORTH
0° 40'

NTS 105–I–12
UTM ZONE 9
NAD 1927
CONTOUR INTERVAL 100m

094147

EXPATRIATE RESOURCES LTD.

FIGURE 9
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

ZINC, LEAD GEOCHEMISTRY

POT PROPERTY
WEST SHEET

SCALE 1:10,000
0 100 200 300 400 500m

DRAWN/REVISED BY: AG	PROJECT: SELWYN BASIN
FILE: D\AC\POT\PO–W–CH.DWG	DATE: SEPTEMBER, 2000

470 000 E

472 000 E

474 000 E

6 944 000 N

6 942 000 N

6 940 000 N

1500

1300

1200

1400

EXPATRIATE RESOURCES
POT PROPERTY

COPPER RIDGE–BILLITON
OP PROPERTY

COPPER RIDGE–BILLITON
ANNIV PROPERTY

YUKON
NWT

LEGEND

- ° Itsi Joint Venture 1976–77 soil sample
- × Itsi Joint Venture 1976–77 silt sample
- ⊗ GSC silt sample
- * Vestor Explorations Ltd. 1973 soil sample
- ✳ Vestor Explorations Ltd. 1973 silt sample
- ▪ Tanzilla Exploration Ltd. 1973 soil sample
- · Makaoo Development Co. Ltd. 1973 soil sample

Zinc (ppm)		Lead (ppm)	
136	≤ 500 ppm (background population)	38	≤ 99 ppm (background population)
632	500–999 ppm (weakly anomalous)	178	100–199 ppm (weakly anomalous)
1516	1000–1999 ppm (moderately anomalous)	288	200–399 ppm (moderately anomalous)
3300	≥ 2000 ppm (strongly anomalous)	417	≥ 400 ppm (strongly anomalous)

TRUE NORTH
UTM GRID NORTH
MAGN. NORTH
0° 40'

094147

NTS 105–I–12
UTM ZONE 9
NAD 1927
CONTOUR INTERVAL 100m

EXPATRIATE RESOURCES LTD.

FIGURE 10
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

ZINC, LEAD GEOCHEMISTRY

POT PROPERTY
EAST SHEET

SCALE 1:10,000
0 100 200 300 400 500m

DRAWN/REVISED BY: AC	PROJECT: SELWYN BASIN
FILE: D\AC\POT\PO-E-CH.DWG	DATE: SEPTEMBER, 2000