Dunn Property

Geological, Prospecting, and Geochemical Report on the Dunn Property

DUNN 1 to 4 Mineral Claims
Skeena Mining Division
N.T.S. 104-B/7E
Latitude 56°27′ North
Longitude 130°42′ West
British Columbia

November 6, 1989

on behalf of
PBX Resources Ltd.
Vancouver, B.C.

by

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- and -
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ABSTRACT

The Dunn property consists of four contiguous modified-grid claims totalling 61 units located approximately 80 km northwest of Stewart, British Columbia. Access to the property is by fixed-wing aircraft from Terrace, Stewart, or Smithers to various airstrips in the area and then via helicopter to the property.

The property lies within the Intermontaine Tectono-Stratigraphic Belt and occurs near the contact between the Stikine Terrane and the unmetamorphosed sediments of the Bowser Basin. The southwestern portion of the property is underlain by quartz-diorite of the Coast Plutonic Complex. The remaining property area is underlain by the Upper Jurassic to Lower Triassic Unuk River Formation which has been intruded by the King Creek Dyke Swarm.

The area has an exploration history dating back to the turn of the century when prospectors passed through the region on their way to the interior. In the 1970's, the porphyry copper boom again brought prospectors and companies into the area. The current gold exploration rush began in 1980 with the option of the Sulphurets property by Esso Minerals Canada and the acquisition of the Johnny Mountain claims by Skyline Exploration Ltd. which was brought into production in mid-1988. The adjacent SNIP property is slated for production in 1990.

At this time, the Eskay Creek prospect, located 28 km northeast of the Dunn property and currently being explored by Calpine and Consolidated Stikine, is the most significant showing in the area. The prospect comprises at least eight mineralized zones occurring over a strike length of 1800 m within a sequence of felsic volcanics. The mineralization is associated with disseminated sulphides in felsic volcanic breccias and graphitic argillites in contact with overlying intermediate volcanic rocks.

A review of all available information indicates that no work has been filed nor are any mineralized occurrences known within the specific area now covered by the Dunn property.

The 1989 exploration program consisted of helicopter-supported reconnaissance prospecting, geological mapping, and geochemical sampling with the objective of evaluating the property's potential for hosting economic precious metals deposits and for the purpose of fulfilling the assessment requirements.

An aerial reconnaissance noted extensive iron staining throughout the property area. The iron staining was found to be associated with weak sulphide mineralization (mainly pyrite, minor pyrrhotite) within the area intruded by the King Creek Dyke Swarm.

Reconnaissance prospecting was completed over a large portion of the DUNN 1 mineral claim. Lithogeochemical sampling in this area yielded elevated to anomalous Au, Ag, Cu, and Zn values. The best results were 1760 ppb Au, 2.8 oz/ton Ag, 5.5% Cu, and 1318 ppm Zn from a selected grab sample of a quartz-diorite dyke containing pockets of massive sulphides.

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INTRODUCTION

PBX Resources Ltd. of Vancouver, commissioned Keewatin Engineering Inc. to conduct a field exploration program to be completed on the Dunn property located in the Unuk River area of northern British Columbia. Exploration was directed by Keewatin Engineering Inc. with geological support and field supervision provided by Taiga Consultants Ltd. as a sub-contractor to augment the Keewatin crew.

The objective of this program was to evaluate the property's potential for hosting economic precious metals deposits, and for the purpose of fulfilling the assessment requirements. Exploration consisted of prospecting, geological mapping, and geochemical sampling. Geochemistry included lithogeochemical, stream silt, and heavy mineral sampling.

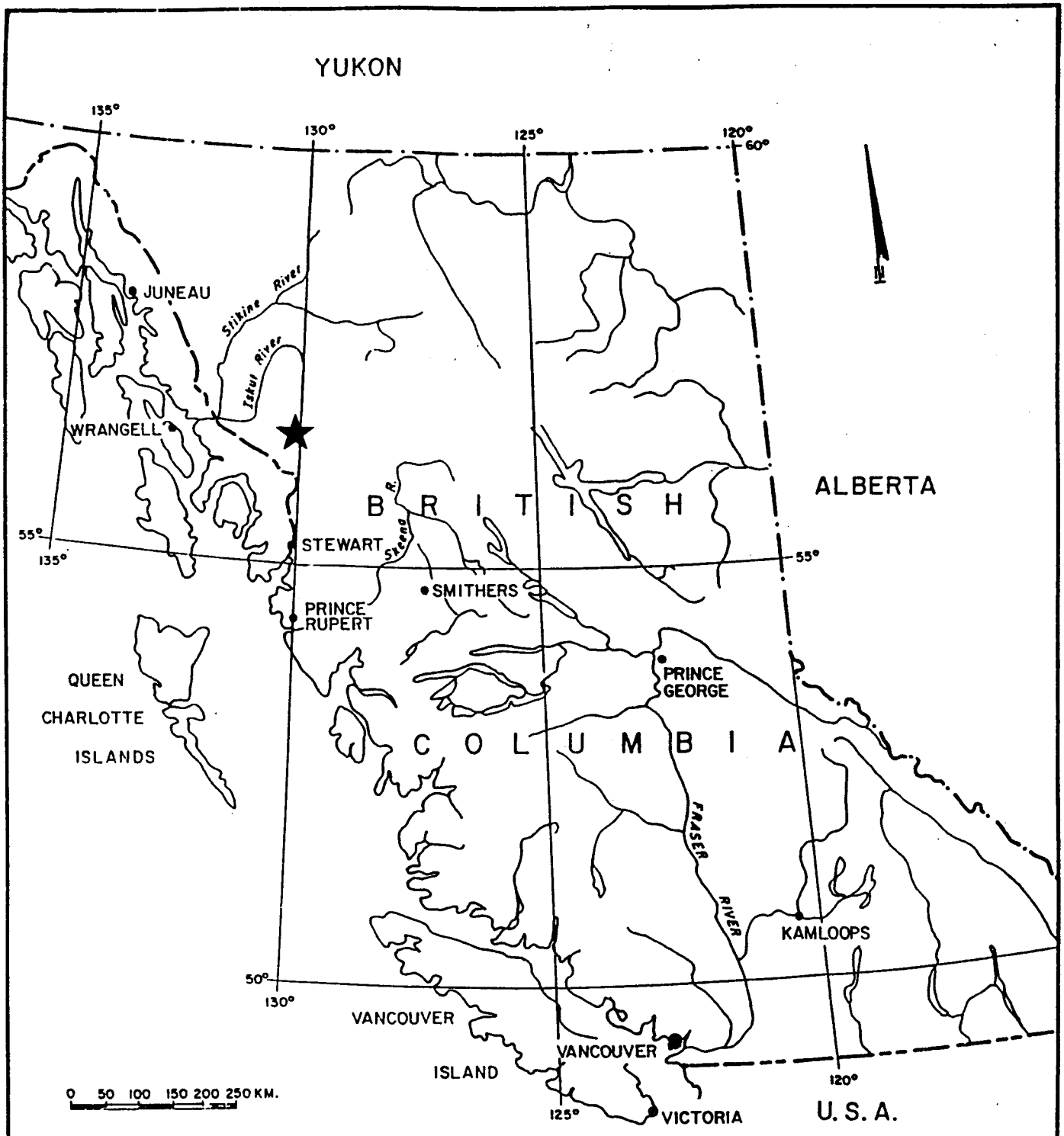
Location and Access

The Dunn property is located in northwestern British Columbia, approximately 80 km northwest of Stewart (Figure 1). The claims are situated within N.T.S. map-sheet 104-B/7E and centered about 56°27′ North latitude and 130°42′ West longitude. Access to the property is by fixed-wing aircraft from Terrace, Stewart, or Smithers to various airstrips in the area and then via helicopter to the property. The claims can also be directly accessed by helicopter from Stewart.

At some future date, road access to the area from the Stewart-Cassiar Highway could be obtained via the Upper Unuk River and Tiegen Creek valleys.

Property Status and Ownership

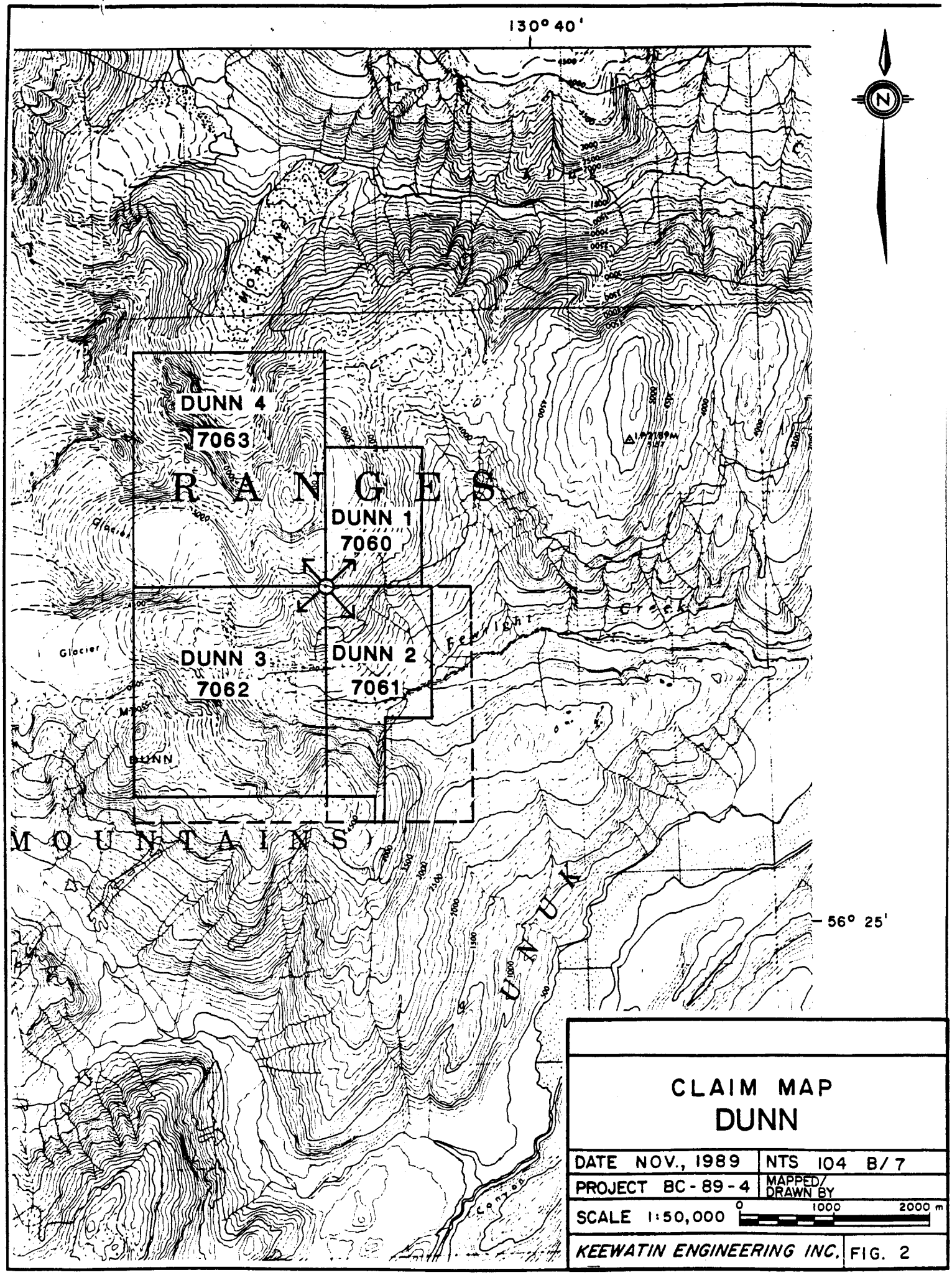
The Dunn property (Figure 2) consists of four modified-grid claims totalling 61 units, located within the Skeena Mining Division. Relevant claims data are tabulated below:



★ PROPERTY LOCATION MAP

Figure I

KEEWATIN ENGINEERING INC.


130° 40'
N
DUNN 4
7063
DUNN 1
7060
DUNN 2
7061
DUNN 3
7062
RANGES
MOUNTAINS
Glacier
Creek
Ferlight
MT DUNN
56° 25'
CLAIM MAP
DUNN
DATE NOV., 1989
NTS 104 B/7
PROJECT BC-89-4
MAPPED/ DRAWN BY
SCALE 1:50,000
0 1000 2000 m
KEEWATIN ENGINEERING INC.
FIG. 2

Claim Name	Record Number	No.of Units	Date of Record	Expiry Date
DUNN 1	7060	6	Dec.12/88	1989
DUNN 2	7061	15	Dec.12/88	1989
DUNN 3	7062	20	Dec.12/88	1989
DUNN 4	7063	20	Dec.12/88	1989

These claims are apparently the subject of an agreement between the claim holder (K. Gourley) and Ross Resources Ltd., which has recently optioned the property to PBX Resources Ltd.

The claim maps show that the eastern half of the DUNN 2 claim and the southern edge of the DUNN 3 claim encompass pre-existing mineral claims.

Physiography and Climate

The Dunn property is situated within the Coast Range Physiographic Division and is characterized by northern rain forests and sub-alpine plateaux. Valleys are steep sided and U- to V-shaped. Elevations (see Figure 2) range from 610 m in the valley of Fewright Creek to 1890 m on Mt.Dunn.

A transitional treeline, characterized by dense sub-alpine scrub, meanders through the property at approximately the 915 m elevation. Terrain above treeline is typified by intermontane alpine flora. Permanent glacial ice is found intermittently above the 1065 to 1370 m elevations. Conifers up to 30 m tall are common below treeline, especially in stream valleys. Water for camp and drilling purposes is generally in good supply from the numerous creeks draining the claim area.

Precipitation is heavy, exceeding 200 cm per annum, with short mild summers but very wet spring and fall periods. Thick accumulations of snow are common during winter. It is seldom possible to begin surface geological work before July and difficult to continue past September.

PREVIOUS EXPLORATION

The area drained by the upper reaches of the Stikine, Iskut, Unuk, Craig, and Bell-Irving Rivers has been explored for gold since the late 1800's when prospectors passed through the region on their way to the interior. In the 1970's, the porphyry copper boom again brought prospectors and companies into the area. The current gold exploration rush began in 1980 with the option of the Sulphurets property by Esso Minerals Canada and the acquisition of the Johnny Mountain claims by Skyline Explorations Ltd. The Johnny Mountain deposit was brought into production in mid-1988, and the adjacent SNIP property is slated for production in 1990.

The mineralization at Eskay Creek was discovered in 1932, and active prospecting has continued sporadically since then. Two adits are the result of limited mining activity on this prospect. In 1988, Calpine Resources Incorporated discovered high-grade gold and silver mineralization on the '21 Zone' (*Northern Miner* - November 7, 1988). A number of excellent diamond drill intersections have been obtained to date, including drill hole CA-88-06 which encountered 96 feet of 0.752 oz/ton gold and 1.13 oz/ton silver. Based on the results of 70 drill holes completed to June 1, 1989, a preliminary geological ore reserve of 2.8 million tons grading 0.23 oz/ton gold and 3.3 oz/ton silver has been calculated for the '21 Zone' (Consolidated Stikine Silver Ltd. - 1989 Annual Report).

The Unuk River area was covered by regional geological mapping in 1988 as part of the Iskut-Sulphurets project carried out by B.C. Ministry of Energy, Mines and Petroleum Resources (Britton, et al.,1989). The whole of N.T.S. 104-B is currently being mapped by R. G. Anderson of the Geological Survey of Canada (Anderson, 1989).

The results of a regional stream sediment sampling program conducted over this area were released in July 1988 (National Geochemical Reconnaissance, 1988). Britton (et al.) report that almost every known precious metal prospect in the Unuk River area is associated with high stream sediment gold values. Known gold deposits are also associated with high but variable values for such

pathfinder elements as silver, arsenic, antimony, and barium. No samples were collected from the creek draining the property.

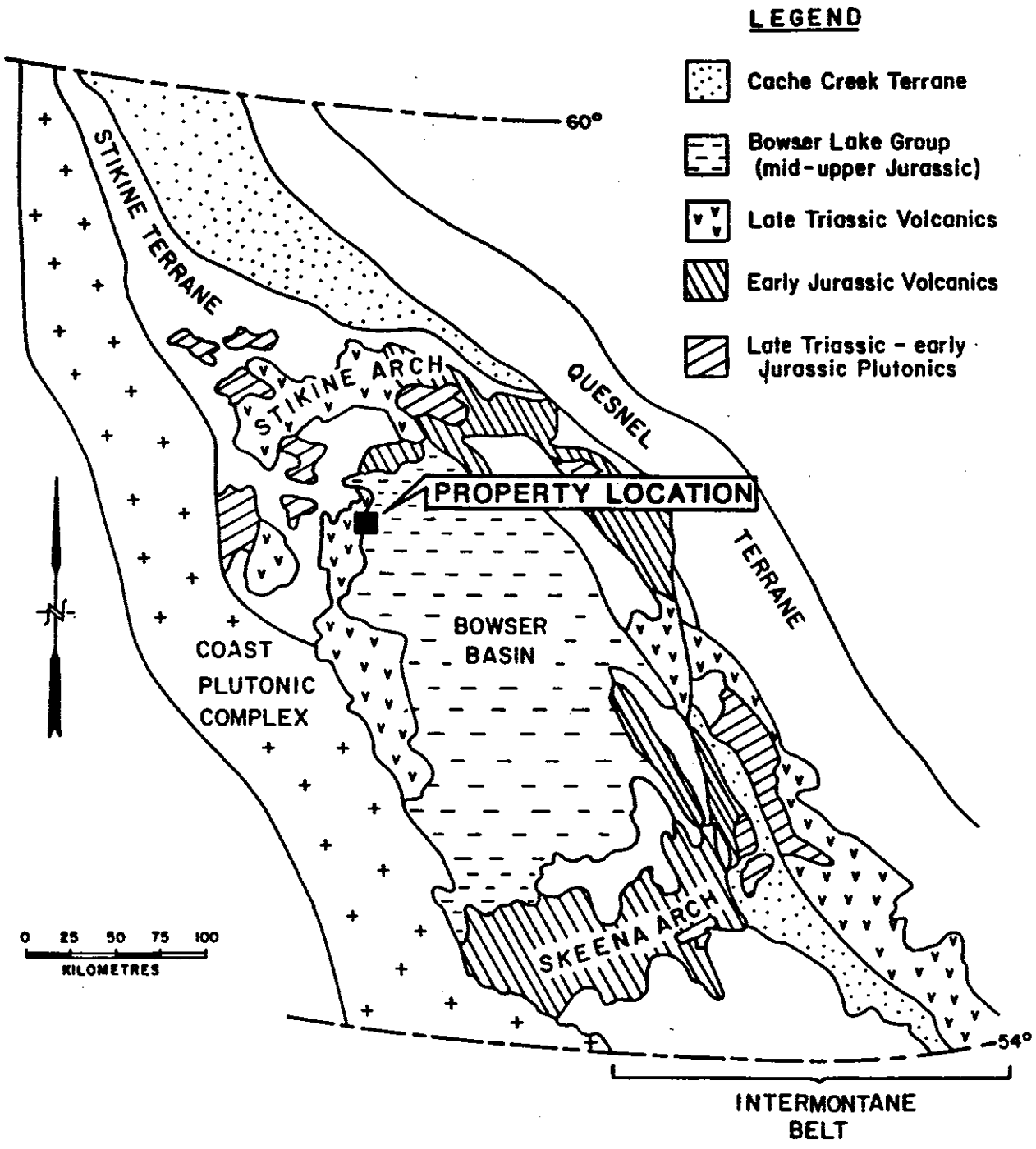
A review of the material in the B.C. Ministry of Energy, Mines and Petroleum Resources assessment report archives indicates that no work has been filed for the specific area now covered by the Dunn property. However, these files do show that the entire Unuk River area was subjected to reconnaissance geological mapping and prospecting by Newmont Mines Ltd. during the period 1959 to 1962. This work did not discover any promising showings or prospects on the present-day Dunn property. The assessment records (Korenic, 1982) indicate that Duval Corp. undertook a regional heavy mineral survey in the Unuk River area in 1981.

REGIONAL GEOLOGY

The property lies within the Intermontane Tectono-Stratigraphic Belt, one of five parallel northwest-southeast trending belts which comprise the Canadian Cordillera (Figure 3). The Dunn property occurs near the contact between the Stikine Terrane, which makes up most of the western part of the Intermontane Belt, and the unmetamorphosed sediments of the Bowser Basin.

The Unuk River area (Figure 4) is underlain by a thick succession of Upper Triassic to Lower Jurassic volcano-sedimentary arc complex lithologies capped by Middle Jurassic marine basin lithologies. This package has been intruded by a variety of plutons representing at least four intrusive episodes spanning late Triassic to Tertiary time. These include synvolcanic plugs, small stocks, dyke swarms, isolated dykes and sills, as well as batholiths belonging to the Coast Plutonic Complex.

The stratigraphic sequence has been folded, faulted, and weakly metamorphosed during Cretaceous time, but some Triassic strata are polydeformed and may record an earlier deformational event. Remnants of Pleistocene to Recent basaltic flows and tephra are preserved locally.

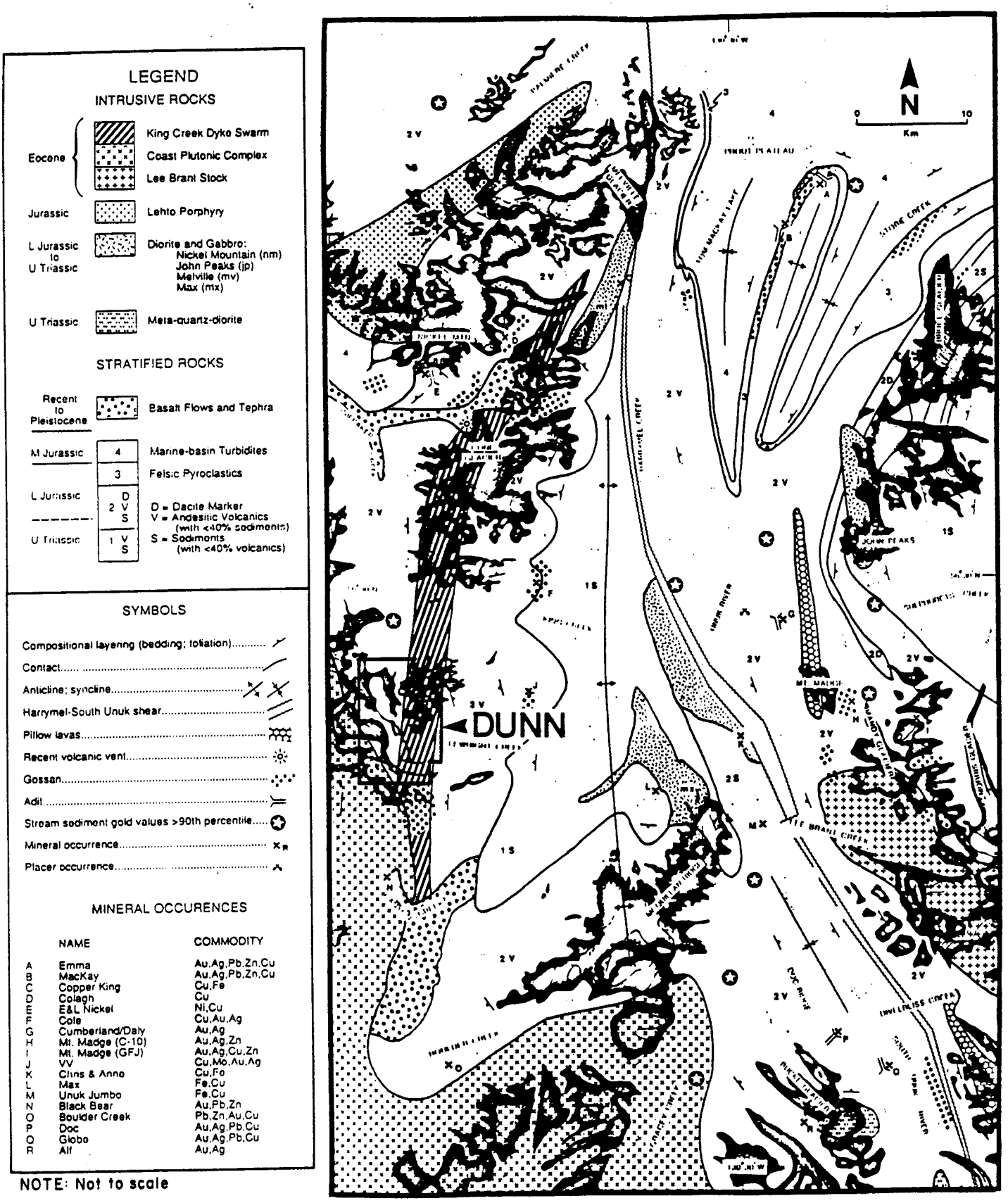


REGIONAL GEOLOGY
BOWSER BASIN
NW BRITISH COLUMBIA

(Outline of terrane boundaries and major rock groups of the Jurassic and Triassic – modified from Thomson, 1985).

Figure 3

KEEWATIN ENGINEERING INC.



NOTE: Not to scale

Geology and mineral deposits, Unuk map area.

Modified after Britton et. al. (1989)

PROPERTY GEOLOGY

Figure 4

PROPERTY GEOLOGY

Regional geological mapping by Britton et al.(1989) shows that the property is underlain on the southwest by the Coast Plutonic Complex and on the north and east by the Lower Jurassic Unuk River Formations (Figure 5). The Unuk River Formation, which consists of andesitic volcanics with lesser sediments, has been intruded by the Tertiary King Creek Dyke Swarm.

Upper Triassic to Lower Jurassic Unuk River Formation (Unit 2)

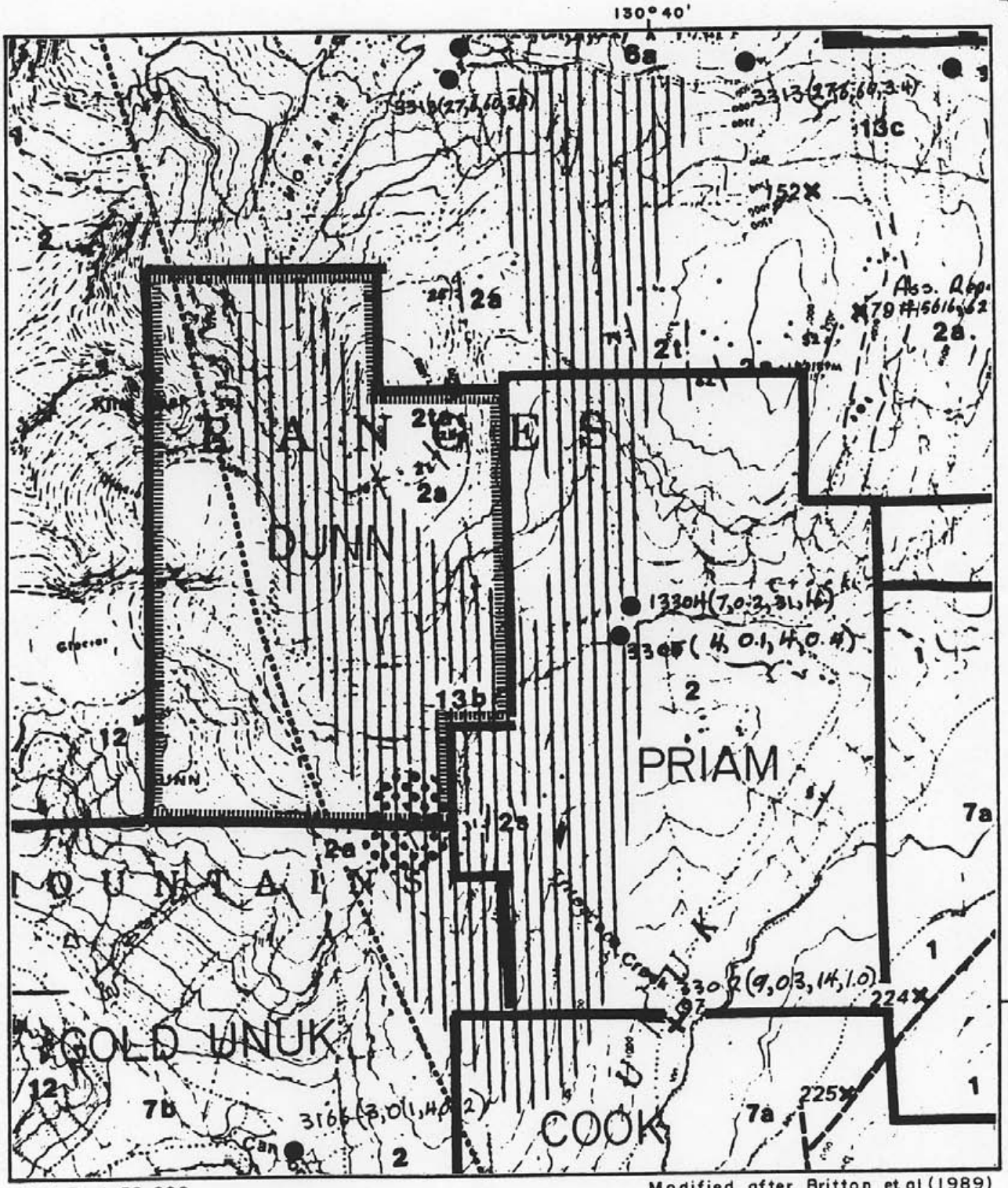
Britton et al.(1989) described this sequence as green and grey intermediate to mafic volcaniclastics and flows with locally thick interbeds of fine-grained immature sediments. The volcanics are reported to be dominantly massive to poorly bedded plagioclase (± hornblende) porphyritic andesite. The sediments are predominantly grey, brown, and green thinly bedded tuffaceous siltstone and fine-grained wacke. These Norian to Sinemurian age rocks of the Unuk River Formation constitute the lowermost unit of the Hazelton Group. The basal contact with Triassic strata appears to lie near the top of a thick sequence of clastic sedimentary rocks. Neither an angular unconformity nor a widespread conglomerate marks the lower contact. Government regional geological mapping and mapping completed during the 1989 property exploration program indicate this unit underlies most of the property area, a large portion of which has been intruded by the King Creek Dyke Swarm.

Eocene and possibly Jurassic Coast Plutonic Complex (Unit 12)

Britton et al.(1989) described the intrusions north of Boulder Creek as biotite-hornblende quartz diorites, which probably contain many discrete stocks. The country rock contacts are reported to be sharp, discordant, and thermally metamorphosed. The age of these intrusives is Eocene, but the complex may include remnants of Jurassic granitoids.

Tertiary King Creek Dyke Swarm (Unit 13b)

The limits of the unit, as shown on Figure 5, roughly indicate where the dykes exceed 50% of the exposed bedrock. This north trending belt of dykes range compositionally from rhyodacite to andesite, and texturally from aphanitic to holocrystalline. Britton et al.(1989) has classified individual dykes as feldspar porphyry dacites, andesite, diabases, and hornblende to quartz diorites. They are reported to be up to 10 m wide and are anastomose, cross-cutting one another at oblique angles. Most of the dykes are described as white-weathering medium-grey andesite to dacite with fine to coarse feldspar phenocrysts in an aphanitic groundmass.



DUNN
PROPERTY GEOLOGY

Figure 5

LEGEND

INTRUSIVE ROCKS

TERTIARY

13 *POST-TECTONIC DYKES*

- 13a *Lamprophyre, andesite, diabase (Narrow not shown)*
- 13b *King Creek Dyke Swarm: feldspar porphyry diorite, andesite, diabase, quartz diorite*
- 13c *Hawilton monzonite: fine-grained biotite-monzonite*

12 *COAST PLUTONIC COMPLEX*

- 12a *Biotite granite*
- 12b *Hornblende-biotite quartz diorite*
- 12c *Lee Grant Stock: K-feldspar porphyry, hornblende-biotite quartz monzonite*

JURASSIC

11 *NICKEL MOUNTAIN GABBRO: metamorphic olivine-pyroxene gabbro*

10 *SYN TO POST-VOLCANIC INTRUSIONS: Porphyritic to phaneritic textured; possibly hypabyssal equivalents of extrusive rocks*

- 10a *Lorna Porphyry: K-feldspar-plagioclase-hornblende porphyry granodiorite to syenite*
- 10b *Bare Lake Dyke: fine- to medium-grained hornblende diorite*
- 10c *Andesite-Diorite Complex: metamorphic, fine- to medium-grained dykes with abundant xenoliths of dark green meta-andesite (possibly Triassic)*

9 *UNUK RIVER DIORITE SUITE: medium- to coarse-grained, mafic to intermediate stocks*

- 9a *John Peaks metamorphic hornblende diorite*
- 9b *Mac biotite-hornblende diorite; quartz diorite*
- 9c *Mahlitz hornblende-biotite diorite to quartz diorite*
- 9d *Dan Ridge biotite monzodiorite*

TRIASSIC

8 *BUCKE GLACIER STOCK: light grey, gneissic to foliated, medium-grained hornblende-biotite quartz diorite*

METAMORPHIC ROCKS

A - F *METAMORPHIC EQUIVALENTS OF UNITS 1, 2 OR 3*

- A *Metapelite: dark grey, carbonaceous quartz-feldspar-sericite phyllite*
- B *Felsic metavolcanics: light green,quartz-albite-chlorite-sericite phyllite; locally with deformed lapilli*
- C *Mafic to intermediate metavolcanics: dark green, plagioclase-chlorite phyllite*
- D *Hornblende-plagioclase mylonite; mylonitic meta-tuffs*
- E *Hornblende-plagioclase gneiss; agmatitic migmatite*
- F *Strongly sheared rocks within the Unuk-Harrymel fault zone*

GOSSANOUS ALTERATION ZONES

Pyrite ± quartz ± sericite ± carbonate ± clay; locally foliated to schistose

Disseminated pyrite in felsic volcanics

VOLCANIC AND SEDIMENTARY ROCKS

(Note: No stratigraphic order is implied within sequences.)

QUATERNARY

RECENT

17 *UNCONSOLIDATED SEDIMENTS*

- 7a *Alluvium, glaciofluvial deposits, landslide debris, moraine*
- 7b *Alluvium underlain by Pleistocene to Recent basalt*

PLEISTOCENE TO RECENT

6 *BASALT FLOWS AND TEPHRA*

- 6a *Dark grey to black, basalt flows and tephra; minor pillow lavas*
- 6b *Basalt tephra*

TRIASSIC TO JURASSIC

HAZELTON GROUP

MIDDLE JURASSIC (TOARCIAN TO BAJOCIAN)

5 *SILTSTONE SEQUENCE (Salmon River Formation): Dark grey, well-bedded siltstone with minor sandstone and conglomerate.*

- 5c *Chert pebble conglomerate and arenite*
- 5t *Rhythmically bedded siltstone and shale (turbidite)*
- 5w *Thinly bedded wacke*
- 5p *Andesitic pillow lavas and pillow breccias with minor siltstone interbeds*

LOWER JURASSIC (TOARCIAN)

4 *FELSIC VOLCANIC SEQUENCE (Mount Dilworth Formation): Light weathering, intermediate to felsic pyroclastic rocks, including dust, ash, crystal and lithic tuffs, lapilli tuff. Locally pyritiferous (5 to 15%) and gossanous. Minor chalcedonic quartz veins locally.*

- 4a *Variably bedded ashfall tuffs*
- 4l *Massive felsic tuff*
- 4r *Black and white, carbonaceous felsic volcanics; locally flow banded and autobrecciated*

LOWER JURASSIC (PLIENSBACHIAN TO TOARCIAN)

3 *PYROCLASTIC-EPICLASTIC SEQUENCE (Betty Creek Formation): Heterogeneous, grey, green, locally purple or maroon, available to bedded pyroclastic and sedimentary rocks; pillow lava*

- 3a *Green and grey, massive to poorly bedded andesite*
- 3d *Grey, green and purple dacite tuff, lapilli tuff, crystal and lithic tuff; massive to well bedded; feldspar phyric*
- 3f *White weathering, felsic tuffs and breccias with quartz stringers*
- 3c *Andesitic lapilli tuff with pink siliceous clasts*
- 3p *Andesitic pillow lavas and pillow breccias with minor siltstone interbeds*
- 3t *Black, thinly bedded siltstone, shale and argillite (turbidite)*

UPPER TRIASSIC TO LOWER JURASSIC (NORIAN TO SINEMURIAN)

2 *ANDESITE SEQUENCE (Unuk River Formation): Green and grey, intermediate to mafic volcaniclastics and flows with locally thick interbeds of fine-grained immature sediments; minor conglomerate and limestone*

- 2a *Grey and green, plagioclase±hornblende porphyritic andesite; massive to poorly bedded*
- 2h *Grey and green, hornblende-(±pyroxene)-feldspar porphyritic andesite; lapilli and ash tuff*
- 2s *Grey, brown and green, thinly bedded, tuffaceous siltstone and fine grained wacke*
- 2t *Black, thinly laminated siltstone (turbidite); shale; argillite*
- 2g *Dark grey, matrix-supported conglomerate with granite cobbles*
- 2l *Grey, variably bedded limestone (completely recrystallized along South Unuk valley)*

TRIASSIC

STUHINI GROUP

UPPER TRIASSIC (CARNIAN TO NORIAN)

1 *LOWER VOLCANOSEDIMENTARY SEQUENCE: Brown, black and grey, mixed sedimentary rocks interbedded with medium to dark green, mafic to intermediate volcanic and volcaniclastic rocks*

- 1t *Grey to black, thinly bedded siltstone, shale, argillite (turbidite)*
- 1w *Brown and grey, fine grained tuffaceous wacke; minor siltstone or conglomerate*
- 1l *Grey, impure, silty, sandy limestone*
- 1a *Green, fine-grained, andesite ash tuff; feldspar and hornblende phyric*
- 1b *Dark green basalt*
- 1p *Grey and green, andesite breccia with augite-hornblende-plagioclase clasts and augite-rich matrix*

SYMBOLS

- Geological boundary (defined, approximate, assumed)
- Bedding, tops known (horizontal, inclined, vertical, overturned)
- Bedding, tops unknown (horizontal, inclined, vertical)
- Bedding, estimated dip (gentle, moderate, steep)
- Stratigraphic tops in pillow volcanics
- Compositional layering in metamorphosed rocks; foliation (inclined, vertical)
- Trend line
- Regional anticline; syncline
- Antiform; synform (normal, overturned)
- Minor fold axis with M, Z or S symmetry; with plunge
- Fault (defined, assumed; D = downthrown side)
- Thrust fault (defined, assumed; teeth on upper plate)
- Air photo lineament
- Fossil locality (F)
- Flamme (f)
- Area with more than 40% Tertiary dykes
- Limit of major phyllite zone
- Volcanic vent (observed, assumed)
- Geologic station
- National geochemical reconnaissance sample site — 871365 (0.8,48,3.8,11); Sample No. (Ag ppm, As ppm, Sb ppm, Au ppb)
- Potassium-argon isotope age site; H = hornblende; age in millions of years before present
- Mineral occurrence; MINFILE number — X83

AGE	GROUPS	FORMATIONS	MEMBERS	LITHOLOGIES
Bathonian	Bowser Lake	Ashman	Main Sequence	Turbidites, wackes, intraformational conglomerates
			Basal Conglomerate	Chert pebble conglomerates
Bajocian to Toarcian	Spatsizi(?)	Salmon River	Pyjama Beds	Thin bedded, alternating siltstones and mudstones
			Basal Limestone	Gritty, fossiliferous limestone
Toarcian	Hazelton	Mount Dilworth	Upper Lapilli Tuff	Dacitic lapilli tuff with flow-bandedd clasts
			Middle Welded Tuff	Dacitic welded ash flow and lappilli tuff
			Lower Dust Tuff	Dacitic dust tuff
Pliensbachian		Betty Creek	Sedimentary Members	Hematitic volcaniclastic sediments, and turbidites
			Volcanic Members	Andesitic to dacitic tuffs and flows
Sinemurian to Hettangian(?)		Unuk River	Premier Porphyry	Two feldspar + hornblende porphyritic tuffs
			Upper Andesite	Massive tuffs with local volcaniclastic sediments
			Upper Siltstone	Turbidites, minor limestones
			Middle Andesite	Massive tuffs and minor volcaniclastic sediments
			Lower Siltstone	Turbidites
			Lower Andesite	Massive to bedded ash tuffs
Norian to Carnian	Stuhini		Volcanic Members	Pyroxene porphyry flows and tuffs
			Sedimentary Members	Turbidites, limestones, conglomerates

TABLE 1. Table of Formations Unuk River Area

Structure

Actual fault surfaces or zones are rarely seen in the Unuk River area, but they are possibly quite common and may have developed concurrently with regional folding. Normal faults in the area are megascopic structures with relatively small offsets.

A 12 km long, north-northeast trending airphoto lineament is reported by Britton et al.(1989). This lineament passes diagonally across the property. The significance of this feature is unknown.

ECONOMIC GEOLOGY

Britton et al.(1989) list 55 mineral occurrences in the Unuk map-sheet. These showings are predominantly gold/silver occurrences and are hosted by a number of various lithologies. Most can be classified into one of four categories: stratabound, vein, skarn, and disseminations. Grove (1986) has determined that the age of the mineralizing events is variable and, notably, can be post-Triassic.

Stratabound mineralization consists almost exclusively of pyritic zones and lenses contained within a particular stratum or a restricted set of strata. The best example is the Eskay Creek prospect, currently being explored by Calpine Resources Incorporated and Consolidated Stikine Silver Ltd. Intrusive-contact (skarn) deposits show a close spatial and temporal relationship with igneous intrusions. Three deposits in this category are the E & L nickel/copper deposit (Minfile #006), the Max copper/iron skarn (Minfile #013), and the Chris-Anne copper/iron skarn (Minfile #125). Britton et al.(1989) stated:

> Mineralization at the E & L occurs within two medium- to coarse-grained, olivine-pyroxene gabbro bodies. These roughly triangular plugs are each approximately 1300 square metres in area and are probably connected. They intruded a sequence of argillites, tuffaceous siltstones, and grey dacitic ash tuffs that strike northwesterly with moderate to steep southwesterly dips. Mineralization consists of pyrrhotite, pentlandite, and chalcopyrite,

with lesser amounts of pyrite and magnetite. In the northwestern gabbro, mineralization extends up to the contact with the sediments, whereas in the southeastern gabbro, mineralization is confined to the pluton. Diamond drilling has delineated pipe-like pods and disseminations of sulphides to a depth of 120 metres. Drill-indicated reserves are 2.8 million tonnes of 0.7% Ni and 0.6% Cu (Sharp, 1965).

The Max prospect lies on the northwest side of McQuillan Ridge, between the Unuk and South Unuk Rivers, at elevations between 455 and 1500 metres. Massive magnetite with lesser pyrrhotite and chalcopyrite occur in skarn-altered sedimentary rocks adjacent to a diorite stock. Garnet, epidote, actinolite, and diopside characterize the skarn assemblage. Drilling has indicated a reserve of 11 million tonnes at 45% iron (Canadian Mines Handbook 1973-1974, page 432).

The Chris-Anne prospect lies approximately 3 kilometres east of the Max. Skarn mineralization is reported in limestone beds which are up to 10 metres thick and that are interbedded with volcaniclastics. Magnetite and pyrrhotite-rich layers, from 0.5 to 7 metres thick, with minor chalcopyrite, extend over a distance of 1 kilometre. There are minor intrusive bodies reported on the property. Grades range from 0.1% to 0.4% copper (Allan and MacQuarrie, 1981).

The gold potential of these skarn deposits does not appear to have been tested. Based on recent skarn studies (Ettlinger and Ray, 1988), this area has many features that are associated with gold-enriched skarns elsewhere in the province: sequences of calcareous and tuffaceous host rocks; structural deformation; intrusion by dioritic I-type granitoids; and contact metamorphism and recrystallization. Some auriferous skarns are enriched in cobalt, an element that may be a useful pathfinder.

High-grade precious metal quartz veins are the target of exploration programs at Mount Madge (Minfile #240 and #233) by Bighorn Development Corporation, and at the Doc prospect (Minfile #014) by Echo Bay Mines Limited. Britton et al.(1989) reported:

The Mount Madge prospects are located south of Sulphurets Creek near its confluence with Unuk River, on the east and west sides of Mandy Glacier. Two different targets are being evaluated (Kruchkowski and Sinden, 1988). On the west, the C-10 prospect (Minfile #240) is a stockwork of thin quartz veinlets, locally with thicker quartz lenses, in intensely altered, fine-grained tuffaceous andesite or dacite. Quartz veinlets locally form up to 30% of the rock. The alteration assemblage consists of quartz and sericite with up to 10% pyrite. Chalcopyrite and traces of sphalerite are also present. The rocks are strongly foliated to schistose and are very similar to the broad alteration zones seen at Brucejack Plateau 12 kilometres to the

northeast (Britton and Alldrick, 1988). Soil samples locally return analyses in excess of 1 ppm gold.

Two kilometres to the east, Ken Konkin discovered a massive pyrite-siderite float boulder with visible gold. Prospecting uphill led to the discovery of the GFJ veins (Minfile #233), apparently flat-lying, zoned siderite-quartz-sulphide veins that returned assays up to 121 grams per tonne gold (Kruchkowski and Sinden, 1988). The veins are poorly exposed. Float blocks seen this year display symmetrical zoning from margin to core across vein widths of 10 to 15 centimetres. Vein margins are 1 to 2 centimetres of thin white quartz layers separated by hairline accumulations of very fine-grained tin-white sulphide, probably arsenopyrite. The core is a very coarse-grained intergrowth of siderite, milky quartz, and cubes and clusters of pyrite, with lesser amounts of sphalerite and chalcopyrite as crystals and irregular masses. Rare tetrahedrite and visible gold have been observed (K.Konkin, personal communication, 1988). The veins cut variably foliated andesitic ash tuffs with thin interbeds of foliated to schistose siltstones.

The Doc prospect (Minfile #014) is located at treeline on a ridge overlooking the South Unuk River, opposite the mouth of Divelbliss Creek. The prospect consists of several west-northwest trending quartz veins up to 2 metres wide that have surface strike lengths of up to 275 metres (Gewargis, 1986). The main veins (Q17, Q22) are massive white quartz with sparse sulphide mineralization (5% to 10%) consisting of galena, pyrite, chalcopyrite, and sphalerite, with associated specular hematite and magnetite. Precious metal values are mostly confined to the sheared edges of veins and immediately adjacent wallrock. Shear zones with very little quartz may also return good values. Seraphim (1948) observed that gold was associated with either specular hematite or with galena and pyrite, but not with chalcopyrite and pyrite assemblages. The veins are a true fissure type, crosscutting folded and metamorphosed andesitic tuffs and thin-bedded sediments, including marble, that have been intruded by irregular dioritic dykes or sills and small monzodioritic plugs. The veins are different from any others seen in the Sulphurets or Unuk map areas. They have very restricted wallrock alteration aureoles, no apparent zoning, and appear to be limited to a few large fluid pathways. In this, they display characteristics of mesothermal veins. Structural control of the vein sets has not been determined but may be due to fractures related to folds in the host rocks. Total mineral inventory of the Q17 and other veins is given as 426,000 tonnes with 9.26 grams per tonne gold and 44.91 grams per tonne silver (*Northern Miner*, November 7, 1988).

Porphyry-type disseminated pyrite, chalcopyrite, and molybdenite mineralization occurs immediately north and south of King Creek, west of Harrymel Creek. Two properties have been worked: the VV to the south and the Cole to the north.

The VV property (Minfile #079) is the site of a heavily weathered monzonitic intrusive body in fault contact, on the east

and west, with layered andesitic lapilli tuffs and tuff breccias with minor siltstone and calcareous sandstone interbeds. The stock is 250 metres wide, at least 6 kilometres long, strikes northerly, and dips steeply to the west, parallel to the country rocks. Chalcopyrite occurs in quartz stockworks and as fine disseminations within the monzonite. Molybdenite, sphalerite, malachite, and azurite have also been reported (Winter and McInnis, 1975; Mawer et al.,1977). Representative assays give 0.34% copper, 0.003% molybdenum, 2.1 grams per tonne silver, and 0.8 gram per tonne gold. Maximum gold and silver values obtained were 8.65 grams per tonne gold and 19.54 grams per tonne silver (Mawer et al.,1977).

The Cole prospect (Minfile #209) is situated approximately 4 kilometres north of the VV claims; it appears to be on strike with the same fault system and has similar intrusive and country rocks. Mineralization consists of up to 10% pyrite as disseminations and fracture fillings. Minor chalcopyrite and malachite have been reported but the bedrock source of the gold/silver soil anomalies has not been located (Korenic, 1982; Gareau, 1983). Reported assays range up to 0.43% copper, 7.12 grams per tonne gold, and 13.03 grams per tonne silver. Gold and copper values show a positive correlation on both properties.

At this time, the Eskay Creek prospect, located 28 km northeast of the Dunn property, is the most significant showing in the area. This prospect comprises at least eight mineralized zones occurring over a strike length of 1800 m within a sequence of felsic volcanics (Mount Dilworth Formation). This property is currently being explored by Calpine and Consolidated Stikine Silver. Preliminary drilling on the '21 Zone' intersected 96 feet assaying 0.752 oz/ton gold and 1.13 oz/ton silver including 52.5 feet grading 1.330 oz/ton gold and 1.99 oz/ton silver (*Northern Miner*, November 7, 1988).

The drilling results obtained to date indicate that the '21 Zone' extends over 335 m and is open along strike and at depth. Based on the results of 70 drill holes completed to June 1, 1989, a preliminary geological reserve of 2.8 million tons grading 0.23 oz/ton gold and 3.3 oz/ton silver was calculated for the '21 Zone' (Consolidated Stikine Silver, 1989 Annual Report). These deposits have been variously described as silicified shear zones (Harris, 1985) or as volcanogenic deposits (Donnelly, 1976). The mineralization is associated with disseminated sulphides in felsic volcanic breccias and graphitic argillites in contact with overlying intermediate volcanic rocks.

A review of all the available information (Minfile, assessment reports, geological maps, reports, etc.) indicates that no mineralized occurrences are known within the area currently covered by the Dunn property.

1989 EXPLORATION PROGRAM

The 1989 property exploration program, completed between September 9 and October 16, consisted of helicopter-supported reconnaissance prospecting, geological mapping, and geochemistry (lithogeochemical, stream silt, and heavy mineral sampling). Areas of known mineralization and gossans noted within the area were investigated and sampled.

A total of 22 rock, 1 stream silt, and 3 heavy mineral samples were forwarded to Bondar-Clegg & Company in Vancouver for multi-element analyses; Au by fire assay-AA and the remaining 29 elements by I.C.P. (results are presented in the Appendix, along with rock sample descriptions).

The accompanying map depicts the property geology (modified after Britton et al.,1989), with 1989 prospecting traverses, sample locations, and Au/Ag/As/Sb analytical results. Descriptions of the exploration completed and the results follow.

ROCK GEOCHEMICAL SAMPLING

Reconnaissance prospecting and geochemical sampling were completed over selected parts of the property. This work was concentrated in the upland areas where rock exposures were most abundant and in areas of extensive iron staining which occur throughout the property. The rugged topography and glacial ice cover were also contributing factors in determining the areas investigated.

The southwestern portion of the property is underlain by quartz-diorite of the Coast Plutonic Complex. The remaining property area is underlain by the Unuk River Formation which has been intruded by the King Creek Dyke Swarm. The extensive iron staining noted is associated with weak sulphide mineralization (mainly pyrite, minor pyrrhotite) within the area intruded by the King Creek Dyke Swarm.

Britton et al.(1989) mapped a gossanous alteration zone (pyrite ± quartz ± sericite ± carbonate ± clay) in the southeast corner of the property. Prospecting completed in this area during the current exploration program found the area to be underlain by andesite tuff and minor narrow conglomerate and argillite beds, intruded by the King Creek Dyke Swarm (felsic porphyry, lamprophyre, felsic, and diorite dykes). Throughout most of the area, the King Creek Dyke Swarm makes up more than 50% of the underlying rocks. Extensive iron staining was noted throughout this area but no mineralization was found associated with the staining.

Reconnaissance prospecting was completed over a large portion of the DUNN 1 mineral claim. This area is also underlain by andesites of the Unuk River Formation, extensively intruded by the King Creek Dyke Swarm (dacite, rhyodacite, and diorite to granodiorite dykes).

A selected grab sample (DER-35) of a quartz-diorite dyke containing pockets of massive sulphides yielded anomalous Au, Ag, Cu, and weak Zn mineralization. Weak copper or lead mineralization was found in three other locations, and one other sample yielded an elevated gold value. A summary of these elevated to anomalous analytical results along with brief sample descriptions follows:

Sample	Au ppb	Ag oz/T	Cu ppm	Pb ppm	Zn ppm	Description
DER-35	1760	2.8	5.5%	-	1318	diorite, 25% sulphides
DPR-45	915	-	-	-	-	diorite, 1% sulphides
DPR-51	-	-	929	-	-	granodiorite, 1% pyrite
DER-36	-	-	717	-	-	dacite dyke, pyrite clots
DER-38	-	-	-	1032	-	dacite dyke, 5% pyrite

Additional exploration is required in this area to determine the significance of this mineralization, with particular attention given to the area from which samples DER-35 and DPR-45 were collected.

Reconnaissance prospecting was also completed along a ridge trending across the DUNN 3 and 4 mineral claims. Minor native copper was found along a fracture plane in an andesite float sample. No other mineralization was located during prospecting of this area.

STREAM SILT SAMPLING

Stream silt geochemical sampling was conducted on the property as part of the current exploration program. Stream silt samples were collected whenever streams were crossed during reconnaissance prospecting traverses. The designation of anomalous values is based on regional G.S.C. survey results in Open File 1645 combined with a visual observation of data obtained during the 1989 exploration on a number of claim groups in the Unuk River area.

Based on these criteria, there were no anomalous precious metals values detected for any of the elements; however, there was only one silt sample collected from the property. Future exploration programs should include the collection of stream silt samples at regular intervals along all the creeks draining the property.

HEAVY MINERAL SAMPLING

A heavy mineral stream sediment sampling survey was conducted on the property as part of the current exploration program. Heavy mineral samples were collected in parts of a creek where there is a sudden transition from high to low energy, if present, moss mat was used. Samples were sieved to -20 mesh and a 3 to 5 kg sample of sieved material was collected.

The samples were forwarded to Bondar-Clegg and Company in Vancouver for multi-element analyses: Au by fire assay-AA and the remaining 29 elements by I.C.P. The heavy mineral separation consists of floating off the light (<3.3) minerals using methylene-iodine followed by magnetic separation. A sample weight of 0.5 grams is taken for the I.C.P. and the remainder used for fire assay.

The heavy mineral sampling survey was conducted by Mr. M. Waskett-Myers of Keewatin Engineering Inc. which company has done a considerable amount of work in the Unuk River area, and in the process, has assembled a fairly substantial data base. These data were used to assess the values obtained on the property.

Heavy mineral sampling is a good first-pass tool and should be considered as a micro-prospecting approach to evaluating an area.

A total of three heavy mineral samples were collected from creeks draining the property area, and reflect background values in all the elements.

SUMMARY AND RECOMMENDATIONS

The 1989 exploration program consisted of helicopter-supported reconnaissance prospecting, geological mapping, and geochemical sampling, with the objective of evaluating the property's potential for hosting economic precious metals deposits and for the purpose of fulfilling the assessment requirements.

Extensive iron staining was noted throughout the property during an aerial reconnaissance of the area. Reconnaissance prospecting found the iron staining to be associated with weak sulphide mineralization (mainly pyrite) within the area intruded by the King Creek Dyke Swarm.

Reconnaissance prospecting was completed over a large portion of the DUNN 1 mineral claim. Lithogeochemical sampling completed in this area yielded elevated to anomalous values for Au, Ag, Cu, and Zn. The best results were 1760 ppb Au, 2.8 oz/ton Ag, 5.5% Cu, and 1318 ppm Zn from a selected grab sample of a quartz-diorite dyke containing pockets of massive sulphides.

A limited amount of reconnaissance prospecting was completed over selected portions of the remaining property area, but did not yield any anomalous precious or base metals values.

A heavy mineral stream sediment sampling survey was completed over the property as part of the 1989 exploration program. The samples reflect background values in all the elements.

Considering the limited amount of exploration completed on the claims, additional work is required in order to fully evaluate the property's mineral potential. This work should consist of extensive reconnaissance prospecting combined with geological mapping, lithogeochemical sampling, and stream silt sampling. Particular attention should be given to the DUNN 1 mineral claim from which lithogeochemical samples collected during the current exploration program yielded elevated precious and base metals values. Stream silt samples should be collected at regular intervals along all creeks draining the property.

CERTIFICATE - C. H. Aussant

I, Claude Henry Aussant, of 31 Templebow Way N.E. in the City of Calgary in the Province of Alberta, do hereby certify that:

1. I am a Consulting Geologist with the firm of Taiga Consultants Ltd. with offices at Suite 400, 534 - 17th Avenue S.W., Calgary, Alberta.

2. I am a graduate of the University of Calgary, B.Sc.Geology (1976), and I have practised my profession continuously since graduation.

3. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta; and I am a Fellow of the Geological Association of Canada.

4. I am co-author of the report entitled "Geological, Prospecting, and Geochemical Report on the **Dunn Property**, DUNN 1 to 4 Mineral Claims, Skeena Mining Division, British Columbia", dated November 6, 1989. I personally worked on the property during the program described herein.

5. I do not own or expect to receive any interest (direct, indirect, or contingent) in the property described herein nor in the securities of **PBX Resources Ltd.**, in respect of services rendered in the preparation of this report.

DATED at Calgary, Alberta, this 6th day of November, A.D. 1989.

PERMIT TO PRACTICE
TAIGA CONSULTANTS LTD.
Signature
Date January 17, 1990
PERMIT NUMBER: P 2399
The Association of Professional Engineers, Geologists and Geophysicists of Alberta

Respectfully submitted,

C. H. Aussant, B.Sc., P.Geol., F.GAC

PROFESSIONAL GEOLOGIST ALBERTA
CLAUDE H. AUSSANT

GEOLOGICAL ASSOCIATION OF CANADA
C. H. AUSSANT
FELLOW

CERTIFICATE

I, DAVID GEORGE DuPRE, of 56 Parkgrove Crescent in the Municipality of Delta in the Province of British Columbia, do hereby certify that:

1) I am a graduate of the University of Calgary, B.Sc. Geology (1969), and have practised my profession continuously since graduation.

2) I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta; and I am a Fellow of the Geological Association of Canada.

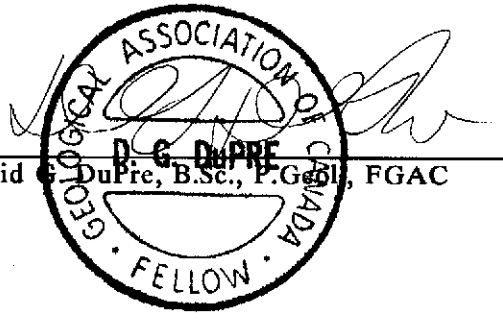
3) I am a consulting geologist with the firm of Keewatin Engineering Inc. with offices at Suite 800 - 900 West Hastings Street, Vancouver, British Columbia.

4) I am the co-author of the report entitled "Geological, Prospecting, and Geochemical Report on the **Dunn Property**, DUNN 1 to 4 Mineral Claims, Skeena Mining Division, British Columbia", dated November 6, 1989. I personally supervised the work on the property and visited the site on two occasions between September 6 and October 15, 1989.

5) I do not own or expect to receive any interest (direct, indirect or contingent) in the property described herein nor in the securities of **PBX Resources Ltd.**, in respect of services rendered in the preparation of this report.

Dated at Vancouver, British Columbia this 6th day of November, A.D. 1989.

Respectfully submitted,



David G. DuPre, B.Sc., P.Geol., FGAC

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---------- (May 19, 1989): Summary Report on the Gold Unuk Property, Skeena Mining Division; for Ross Resources Ltd., private company report

A P P E N D I X

Summary of Personnel
Rock Sample Descriptions
Certificates of Analysis
Analytical Techniques

* *

SUMMARY OF PERSONNEL

Name / Address	Position	Dates	Man Days
C. H. Aussant Calgary, Alberta	Project Geologist	Sep.9-Oct.16	0.50
M. Waskett-Myers Vancouver, B,C.	Geochemist	Sep.9-Oct.16	0.50
B. McIntyre Vancouver, B.C.	Senior Prospector	Sep.9-Oct.16	0.50
S. Hardlotte LaRonge, Sask.	Senior Prospector	Sep.9-Oct.16	1.50
Don McLeod LaRonge, Sask.	Senior Prospector	Sep.9-Oct.16	1.50
Dennis McLeod Stanley Mission, Sask.	Junior Prospector	Sep.9-Oct.16	1.50
Irvine Roberts Stanley Mission, Sask.	Junior Prospector	Sep.9-Oct.16	1.50
C. Oevermann Smithers, B.C.	Cook	Sep.9-Oct.16	1.50
		TOTAL	9.00

ROCK SAMPLE DESCRIPTIONS

	Au ppb	
DVR-028	6	grab o/c; 20-30 cm quartz vein, containing clots of pyrite, minor chalcopyrite
DZR-049	8	grab o/c; very f.g. diorite, rusty weathered, minor pyrite
DZR-050	8	grab o/c; black aphanitic argillite, <1% pyrite, minor quartz-pyrite stringers
DOR-041	<5	float; green andesite, pyrite lining fractures, trace native copper along fracture planes (may be a very fine-grained phase of the diorite)
DER-035	1760	2.8 oz/ton Ag, 5.5% Cu, 1318 ppm Zn; grab o/c; 25% massive sulphides (chalcopyrite, pyrite) in a dark grey-green quartz diorite, rusty weathered, malachite/azurite staining
DER-036	27	717 ppm Cu; grab o/c; medium to light grey dacite tuff, aphanitic, pockets of pyrite, rusty weathered
DER-037	27	grab o/c; light grey dacite dyke, weakly porphyritic, rusty weathered along fractures, pyrite in pockets and lining fracture planes
DER-038	8	1032 ppm Pb; grab o/c; light grey aphanitic dacite dyke, 5% diss pyrite, pyrite crystals
DER-039	23	grab o/c; very f.g. greenish grey diorite, 5-7% diss Py
DER-040	<5	grab o/c; same as above
DER-041	10	float; rhyodacite tuff, pale grey, aphanitic, pyrrhotite blebs, 3% diss pyrite, rusty weathered
DPR-045	915	grab o/c; diorite dark green, very mafic, fine-grained, 1% sulphides, diss Po-Py, moderately magnetic
DPR-046	12	float; rhyodacite, beige, pyrite crystals 2% pyrite
DPR-047	8	float; quartz diorite, beige to grey, 1-3% diss pyrite, occ pyrite clots
DPR-048	<5	grab o/c; granodiorite, light grey, porphyritic, rusty weathered, 1% diss Py-Po
DPR-049	7	grab o/c; quartz, rusty weathered, pockets of pale pyrite, quartz fracture filling
DPR-050	<5	grab o/c; quartz-feldspar porphyry, dark green, 1-3% Py

	Au ppb	
DPR-051	7	929 ppm Cu; grab o/c; granodiorite, pale green, fractured, 1% diss pyrite crystals
DVR-029	<5	grab o/c; quartz veining and flooding in andesite tuff, disseminations and clots of pyrite, hematite stained
DVR-030	24	grab o/c; rhyolite porphyry
DVR-031	<5	grab o/c; 15 cm wide quartz vein with disseminated pyrite and pyrrhotite
KYR-04	8	grab o/c; mottled purple to green andesite tuff, pyrite clots, <1% disseminated pyrite crystals

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BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

DATE PRINTED: 13-OCT-89

REPORT: V89-06887.0

PROJECT: DUNN-HOMER

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 89DE-R035	Dunn	1760	>50.0	84	14	<0.5	<2	17	<5	234	28	>20000
R2 89DE-R036		27	1.4	25	196	<0.5	<2	<1	<5	13	28	717
R2 89DE-R037		27	0.4	20	227	<0.5	<2	<1	9	5	60	177
R2 89DE-R038		8	1.6	37	118	<0.5	<2	2	6	3	91	172
R2 89DE-R039		23	0.4	17	103	<0.5	3	<1	<5	62	54	236
R2 89DE-R040		<5	<0.2	22	334	<0.5	<2	<1	<5	22	103	17
R2 89DE-R041		10	0.5	23	114	<0.5	2	5	<5	14	69	35
R2 89DP-R045		915	0.5	52	36	<0.5	23	<1	<5	25	35	271
R2 89DP-R046		12	0.6	70	71	<0.5	<2	<1	10	11	45	32
R2 89DP-R047		8	0.6	17	180	<0.5	<2	<1	<5	26	150	11
R2 89DP-R048		<5	<0.2	14	390	<0.5	3	<1	<5	11	91	29
R2 89DP-R049		7	0.3	8	95	<0.5	6	<1	<5	2	209	10
R2 89DP-R050		<5	0.2	23	21	<0.5	3	<1	<5	27	158	26
R2 89DP-R051	Dunn	7	0.6	31	34	<0.5	<2	<1	<5	36	105	929
R2 89DV-R028	Dunn	6	<0.2	24	248	<0.5	2	<1	5	8	152	14
R2 89DV-R029	Gold Creek	<5	1.0	13	200	<0.5	<2	<1	10	2	128	96
R2 89DV-R030		24	0.5	<5	64	<0.5	<2	<1	<5	14	63	67
R2 89DV-R031		<5	0.2	<5	12	<0.5	<2	<1	<5	3	233	15
R2 89DZ-R049	Dunn	8	0.4	12	262	<0.5	<2	<1	8	16	76	38
R2 89DZ-R050	Dunn	8	<0.2	97	104	<0.5	<2	<1	<5	14	58	57

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
R2 89DE-R035		59	<1	10	9	21	195	40	<20	50	4	51
R2 89DE-R036		10	<1	5	4	2	12	<2	<20	<5	3	<20
R2 89DE-R037		13	3	10	3	3	3	<2	62	6	7	<20
R2 89DE-R038		6	3	4	5	2	1	1032	<20	7	1	<20
R2 89DE-R039		11	<1	3	3	4	70	<2	<20	5	2	<20
R2 89DE-R040		13	<1	6	3	5	41	27	<20	6	4	<20
R2 89DE-R041		16	<1	6	8	5	18	39	<20	9	6	<20
R2 89DP-R045		59	<1	11	4	19	<1	29	<20	49	4	24
R2 89DP-R046		10	4	3	4	3	4	<2	<20	<5	5	<20
R2 89DP-R047		13	<1	12	2	5	21	<2	<20	7	7	<20
R2 89DP-R048		14	2	7	3	3	25	9	<20	<5	7	<20
R2 89DP-R049		5	1	1	16	2	4	5	<20	<5	<1	<20
R2 89DP-R050		9	<1	6	25	2	17	6	<20	7	3	<20
R2 89DP-R051		9	<1	6	14	2	26	<2	<20	8	3	<20
R2 89DV-R028		10	3	8	3	3	12	<2	<20	<5	9	<20
R2 89DV-R029		5	4	2	3	1	3	8	<20	6	1	<20
R2 89DV-R030		12	<1	17	6	2	12	<2	70	<5	10	<20
R2 89DV-R031		4	<1	1	2	<1	5	<2	<20	<5	<1	<20
R2 89DZ-R049		8	3	9	2	3	34	<2	<20	<5	4	<20
R2 89DZ-R050		16	<1	12	2	5	21	<2	54	9	9	<20

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 89DE-R035		12	<10	118	61	28	4	318	4
R2 89DE-R036		24	<10	<10	40	<10	2	85	1
R2 89DE-R037		21	<10	<10	34	<10	9	55	2
R2 89DE-R038		26	<10	<10	2	<10	2	551	2
R2 89DE-R039		25	<10	<10	39	<10	4	41	<1
R2 89DE-R040		20	<10	<10	76	<10	6	101	2
R2 89DE-R041		63	<10	<10	74	<10	4	491	1
R2 89DP-R045		25	<10	42	107	<10	4	62	2
R2 89DP-R046		67	<10	<10	33	<10	12	29	1
R2 89DP-R047		13	<10	<10	97	<10	7	30	1
R2 89DP-R048		17	<10	<10	70	<10	5	90	2
R2 89DP-R049		12	<10	<10	9	<10	1	7	2
R2 89DP-R050		15	<10	<10	43	<10	2	76	2
R2 89DP-R051		43	<10	<10	68	<10	1	75	2
R2 89DV-R028		19	<10	<10	77	<10	5	35	<1
R2 89DV-R029		8	<10	<10	10	<10	<1	27	1
R2 89DV-R030		3	<10	<10	103	<10	5	106	<1
R2 89DV-R031		5	<10	<10	4	<10	<1	10	<1
R2 89DZ-R049		12	<10	<10	62	<10	8	34	2
R2 89DZ-R050		85	<10	<10	95	<10	3	85	<1

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Geochemical Lab Report

DATE PRINTED: 13-OCT-89

REPORT: V89-06886.0

PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 8900-R041	Dunn	<5	0.3	18	69	<0.5	<2	<1	9	11	46	296

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Geochemical Lab Report

DATE PRINTED: 13-OCT-89

REPORT: V89-06886.0

PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	Ia PPM	Ii PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
R2 8900-R041		9	3	7	2	4	38	<2	70	<5	5	<20

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DATE PRINTED: 13-OCT-89

REPORT: V89-06886.0

PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 8800 R041		24	<10	<10	61	<10	8	46	1

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 23-OCT-89

REPORT: V89-06968.0 | PROJECT: FLORY | PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
✓ R2 KYR04 Prism		8	0.5	<5	72	<0.5	6	<1	<5	22	129	61

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Geochemical Lab Report

DATE PRINTED: 23-OCT-89

REPORT: V89-06968.0 | PROJECT: FLORY | PAGE 1B

SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
R2_KYR04		14	<1	4	3	5	28	21	169	10	9	<20

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A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 23-OCT-89

REPORT: V89-06968.0 | PROJECT: FLORY | PAGE 1C

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 KTR04		63	<10	<10	49	<10	2	66	<1

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DATE PRINTED: 24-OCT-89

REPORT: V89-06887.6

PROJECT: DUNN-HOMER PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Ag OPT	Cu PCT
R2 89DE-R035		2.80	5.50

Dunn

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Geochemical Lab Report

DATE PRINTED: 20-OCT-89

REPORT: V89-01696.0

PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
31 89DOL042	DUNN	<5	<0.2	<5	55	<0.5	3	1	14	7	25	6

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Geochemical Lab Report

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DATE PRINTED: 20-OCT-89

REPORT: V89-06960.0

PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
T1 89DOL042		8	9	5	2	5	6	<2	<20	6	1	<20

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Geochemical Lab Report

DATE PRINTED: 20-OCT-89

REPORT: V89-06960.0

PROJECT: UNUK

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
T1 89DOL042		36	<10	<10	67	<10	3	22	5

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Geochemical Lab Report

REPORT: V89-06781.0 (COMPLETE)

REFERENCE INFO:

CLIENT: KEEWATIN ENGINEERING INC.
PROJECT: PARADIGM

SUBMITTED BY: TERRAMIN RES. LAB
DATE PRINTED: 4-OCT-89

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold Fire Assay	93	5 PPB	FIRE-ASSAY	Fire Assay AA
2	Ag	Silver	93	0.2 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
3	As	Arsenic	93	5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
4	Ba	Barium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
5	Be	Beryllium	93	0.5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
6	Bi	Bismuth	93	2 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
7	Cd	Cadmium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
8	Ce	Cerium	93	5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
9	Co	Cobalt	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
10	Cr	Chromium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
11	Cu	Copper	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
12	Ga	Gallium	93	2 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
13	La	Lanthanum	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
14	Li	Lithium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
15	Mo	Molybdenum	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
16	Nb	Niobium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
17	Ni	Nickel	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
18	Pb	Lead	93	2 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
19	Rb	Rubidium	93	20 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
20	Sb	Antimony	93	5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
21	Sc	Scandium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
22	Sn	Tin	93	20 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
23	Sr	Strontium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
24	Ta	Tantalum	93	10 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
25	Te	Tellurium	93	10 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
26	V	Vanadium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
27	W	Tungsten	93	10 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
28	Y	Yttrium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
29	Zn	Zinc	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
30	Zr	Zirconium	93	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma

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Geochemical Lab Report

REPORT: V89-06781.0 (COMPLETE)

REFERENCE INFO:

CLIENT: KEEWATIN ENGINEERING INC.
PROJECT: PARADIGM

SUBMITTED BY: TERRAMIN RES. LAB
DATE PRINTED: 4-OCT-89

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
T STREAM SEDIMENT,SILT	41	1 -80	41	DRY, SIEVE -80	41
R ROCK OR BED ROCK	52	2 -150	52	CRUSH,PULVERIZE -150	52

REPORT COPIES TO: KEEWATIN ENGINEERING INC.
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Certificate of Analysis

REPORT: V89-06872.6 (COMPLETE)

REFERENCE INFO:

CLIENT: KEEWATIN ENGINEERING INC.
PROJECT: FLORY

SUBMITTED BY: UNKNOWN
DATE PRINTED: 17-OCT-89

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ag	Silver	1	0.02 OPT	HF-HNO3-HClO4-HCl	Atomic Absorption
2	Cu	Copper	1	0.01 PCT		Atomic Absorption

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	2	2 -150	2	AS RECEIVED, NO SP	2

HEAVY MINERAL RESULTS

LAB NUMBER	FIELD NUMBER	LOCATI	Au(30g (ppb)	Ag (ppm)	As (ppm)	Ba (ppm)	Be (ppm)	Bi (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Ga (ppm)	La (ppm)	Li (ppm)	Mo (ppm)	Nb (ppm)	Ni (ppm)	Pb (ppm)	Rb (ppm)	Sb (ppm)	Sc (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Te (ppm)	V (ppm)	W (ppm)	Y (ppm)	Zn (ppm)	Zr (ppm)
75770027	89 K WH41	PRI	72	0.8	-5	298	-0.5	10	-1	34	69	73	196	3	37	5	74	3	32	10	61	20	7	-20	50	45	-10	152	-10	24	97	9

DUNN PROPERTY

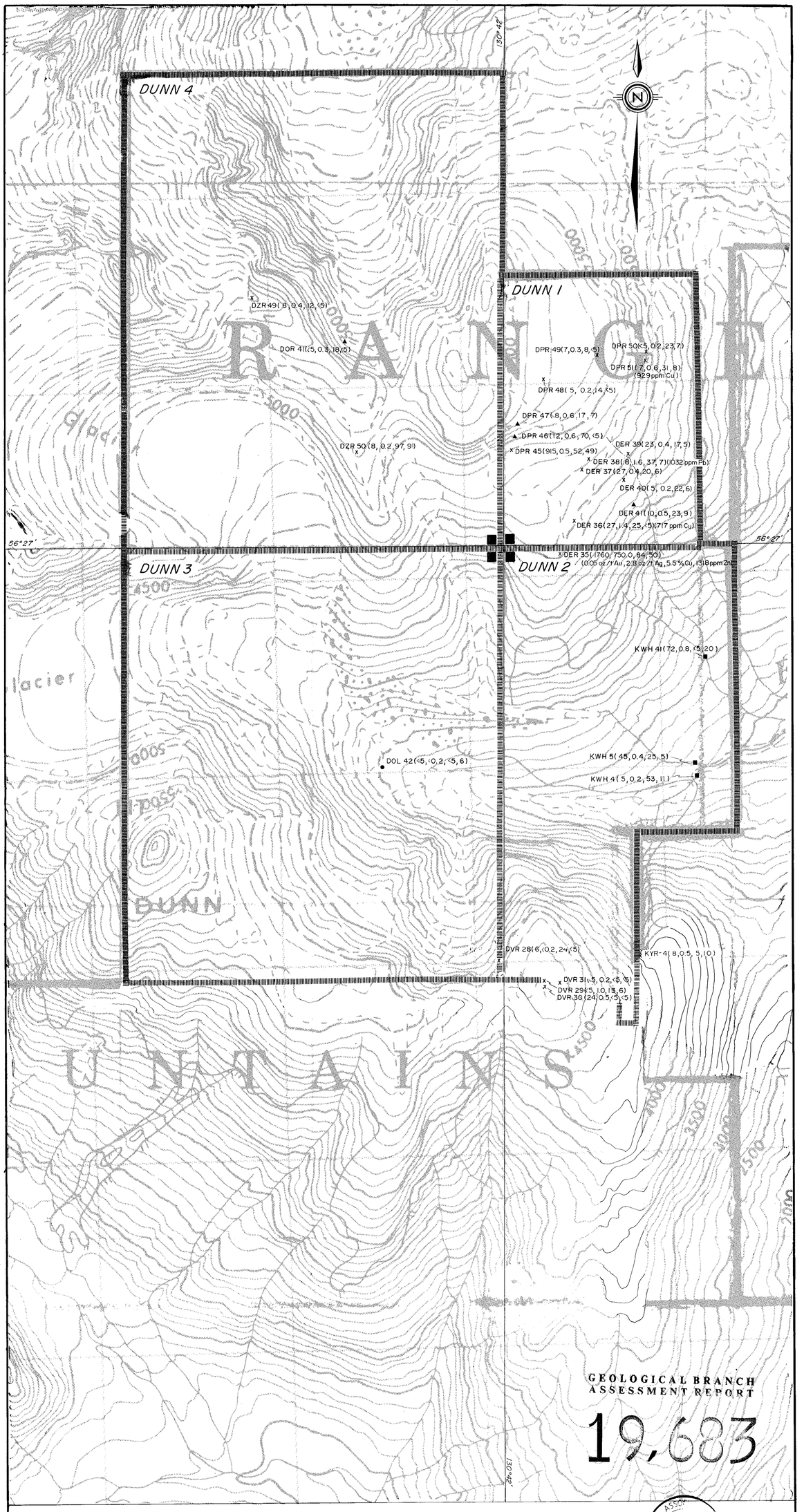
HEAVY MINERAL RESULTS

LAB NUMBER	FIELD NUMBER	LOCATI	Au(30g (ppb)	Ag (ppm)	As (ppm)	Ba (ppm)	Be (ppm)	Bi (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Ga (ppm)	La (ppm)	Li (ppm)	Mo (ppm)	Nb (ppm)	Ni (ppm)	Pb (ppm)	Rb (ppm)	Sb (ppm)	Sc (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Te (ppm)	V (ppm)	W (ppm)	Y (ppm)	Zn (ppm)	Zr (ppm)
69690004	89 K WH 4	DUN	-5	0.2	53	464	-0.5	-2	-1	85	32	152	35	4	59	22	5	6	39	-2	100	11	4	-20	35	-10	-10	345	-10	12	85	3
69690005	89 K WH 5	DUN	45	0.4	25	274	-0.5	-2	-1	41	29	111	60	3	20	7	4	4	28	4	104	5	7	-20	70	-10	-10	221	-10	14	69	5

SUMMARY OF EXPENDITURES

Dunn 1 - 4

Personnel and Crew	$ 3,434.16
Transportation - helicopter/fixed wing/fuel	1,587.05
Camp - food/accommodation	655.20
Assay/Report/Drafting/Secretarial	1,836.89
TOTAL EXPENDITURES:	**$ 7,512.30**



GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,683

LEGEND

- ◇ Regional stream silt sample site (Au ppb, Ag ppm, As ppm Sb ppm)
- ✱ Minfile mineral occurrence (Cu ppm, Pb ppm, Zn ppm, Au ppb, Ag ppm)
- x Rock sample - outcrop (Au ppb, Ag ppm, As ppm, Sb ppm)
- ▲ Rock sample - float (Au ppb, Ag ppm, As ppm, Sb ppm)
- ● Stream silt sample (Au ppb, Ag ppm, As ppm, Sb ppm)
- ■ Heavy mineral sample (Au ppb, Ag ppm, As ppm, Sb ppm)

D. G. Dupre

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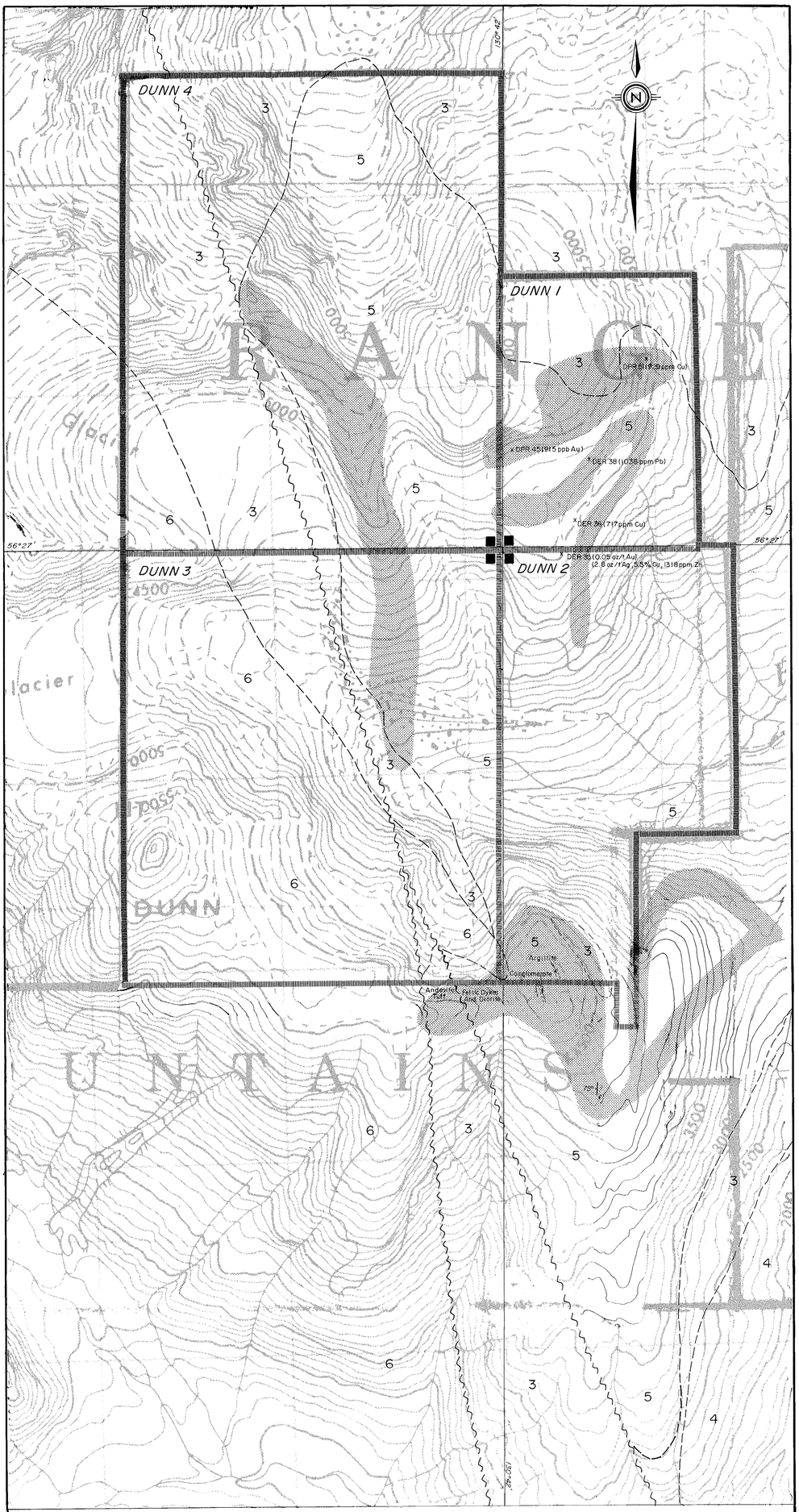
DUNN PROJECT

1989 EXPLORATION SAMPLE LOCATIONS & RESULTS

DATE: NOV. 1989	NTS: 104B/7
PROJECT: DUNN	
SCALE: 1:10,000	0 100 200 300 400 500 METRES
KEEWATIN ENGINEERING INC.	MAP No. 1



LEGEND

Volcanic Sedimentary Rocks

Pleistocene to Recent
1 — Basalt flows and tephra: dusk brown to black, minor pillow lavas

Lower Jurassic (Pliensbachian to Toarcian)
2 — Betty Creek Formation: pyroclastic-epiclastic sequence, heterogeneous, grey-green, massive to bedded, pyroclastics and sedimentary rocks (black, thinly bedded siltstone, shale, and argillite)

Upper Triassic to Lower Jurassic (Norian to Sinemurian)
3 — Unuk River Formation: andesite sequence, green and grey, intermediate to mafic volcaniclastics and flows, with locally thick interbeds of fine-grained immature sediments, minor conglomerates, and limestone

Upper Triassic (Carnian to Norian)
4 — Stuhini Group: brown, black, grey; mixed sedimentary rocks (siltstone, shale, argillite, limestone, chert), with minor mafic to intermediate volcanics and volcaniclastic rocks

Intrusive Rocks

Tertiary
5 — Post-Tectonic Dykes
King Creek Dyke Swarm: feldspar porphyry dacite, andesite, diabase, and hornblende to quart diorite; limits of the unit shown indicate where the dykes exceed 50% of the exposed bedrock

9 — Hawilton Monzonite - fine grained monzonite

6 — Coast Plutonic Complex: hornblende-biotite-quartz diorite to granodiorite.

Jurassic
7 — Unuk River Diorite Suite:
a) Mxx: biotite-hornblende diorite, quartz diorite, granodiorite
b) Mebelle: hornblende-biotite diorite, quartz diorite

Metamorphic Rocks

8 — Metamorphic equivalents of Units 1, 2, or 3
a) hornblende, tryhnite gneiss, mylonite
b) Unuk-Harrymel Fault Zone, strongly sheared rock within fault zone

SYMBOLS

- Geological contact (observed, assumed)
- Bedding with dip
- Foliation
- Regional anticline
- Fault (defined, assumed)
- Alephoto lineament
- Regional stream silt sample site (Au ppb, Ag ppm, As ppm Sb ppm)
- Mintile mineral occurrence (Cu ppm, Pb ppm, Zn ppm, Au ppb, Ag ppm)
- Rock sample - outcrop (Au ppb, Ag ppm, As ppm, Sb ppm)
- Rock sample - float (Au ppb, Ag ppm, As ppm, Sb ppm)
- Stream silt sample (Au ppb, Ag ppm, As ppm, Sb ppm)
- Heavy mineral sample (Au ppb, Ag ppm, As ppm, Sb ppm)
- Trench
- AREA OF PROSPECTING COVERAGE

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DUNN PROJECT

GEOLOGY & ANOMALOUS VALUES

DATE: NOV. 1989 | NTS: 104B/7

PROJECT: DUNN

SCALE: 1:10,000 (0 100 200 300 400 500 METRES)

KEEWATIN ENGINEERING INC. | MAP No. 2