

MAP NO:106D/4

ASSESSMENT REPORT: X

DOCUMENT NO: 093253

PROSPECTUS:

MINING DISTRICT: Mayo

CONFIDENTIAL: X

TYPE OF WORK:Trenching, sampling

OPEN FILE:

REPORT FILED UNDER: Janet Dickson

DATE PERFORMED:August 23-24, 1994

DATE FILED: November 8, 1995<sup>9</sup>

LATITUDE:64 01

AREA:Dublin Gulch

LONGITUDE:135 37

VALUE:\$4000

CLAIM NAME AND #:Len 4,6,8,10,24,26,28,30

WORK DONE BY:R.A.Doherty and J.A. vanRanden

WORK DONE FOR: Aurum Geological Consultants Inc.

DATE TO GOOD STANDING	

REMARKS:Fort Knox gold porphyry target. Six hand trenches were completed in areas of meneralized granodiorite and up to 3% sulphides (arsenopyrite, pyrite and chalcopyrite) were noted. Rock samples from trenching assayed up to 780 ppb Au.



**1994 ASSESSMENT REPORT ON  
THE LEN PROPERTY**

Mayo Mining District, Yukon  
August 23-24, 1994

**093253**

**Location:** 1. 47 km NNE of Mayo, Y.T.  
2. NTS Sheet 106D/4  
3. Latitude 64°01'  
Longitude 135°37'

**For:** Mrs. Janet Dickson  
P.O. Box 4940  
Whitehorse, Yukon  
Y1A 4S3

**By:** R. Allan Doherty, P.Geo.  
J. A. vanRanden, B.Sc.  
**Aurum Geological Consultants Inc.**  
205-100 Main Street  
P.O. Box 4367  
Whitehorse, Yukon  
Y1A 3T5

October 28, 1994

## SUMMARY

Aurum Geological Consultants Inc., was retained by Mrs. Janet Dickson to explore the Len property located in the Mayo Mining District, Yukon Territory. The property is accessible by helicopter from Mayo, Yukon.

The property is underlain by Proterozoic-Paleozoic Hyland Group schist and limestone and Devonian / Mississippian Keno Hill quartzite. These rocks are intruded by a Cretaceous granodiorite stock.

The property hosts a 61 x 2.7m quartz vein and is also a bulk tonnage, low grade, gold target similar to the Fort Knox and Dublin Gulch deposits. In 1994, Aurum Geological Consultants Inc. completed six trenches by hand within the granodiorite on areas exhibiting extensive quartz veining and limonite alteration.

Six trenches on areas of mineralized granodiorite were completed and sulfides up to 3% were found on dry fractures within the granodiorite. Arsenopyrite, pyrite and occasional chalcopyrite make up the majority of sulfides. The granodiorite also contains narrow (<2 cm) quartz stringers subparallel to the dry fractures. One 45 cm quartz vein in subcropping granodiorite was found.

A total of 41 rock samples were collected from the five trenches and the analytical results for gold ranged from 5 to 780 ppb Au. Several other significant gold +/- coincident arsenic and/or bismuth anomalies were outlined during the limited exploration work conducted in 1994.

With 'Fort Knox' style mineralization as a target, future work should consist of systematic mapping and follow-up sampling of all existing quartz stockwork zones within the Cretaceous stock, and detailed prospecting over the entire property. Areas of poor rock exposure should be explored with reconnaissance auger soil sampling to obtain the maximum sample depth.

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## INTRODUCTION

This report was prepared at the request of Mrs. Janet Dickson, owner of the Len Property. Its purpose is to summarize the exploration activities on the Len Claims and to satisfy the reporting and work requirements under the Yukon Quartz Mining Act.

Exploration work consisted of hand trenching, and subsequent rock sampling, and prospecting. The work was carried out on August 23 and 24th, 1994, by Jo-Anne vanRanden, B.Sc., Brain Sauer, Prospector, and Conrad Fox, of Aurum Geological Consultants Inc. Personnel were transported via Trans North Helicopter from Mayo.

This report is based on the authors' knowledge of the property and area gained from exploration work on this and nearby properties, and from public and private reports.

### Location and Access

The Len Property is located approximately 47 km northwest of Mayo, just south of the junction of Lynx Creek and Skate Creek on the north flank of an east-west trending ridge. The property is situated in the south-east corner of 1:50,000 Dublin Gulch map area (NTS 106D/4). The geographic coordinates of a point approximately in the centre of the property are 64°01' north latitude and 135°37' west longitude (Figure 1).

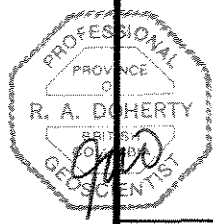
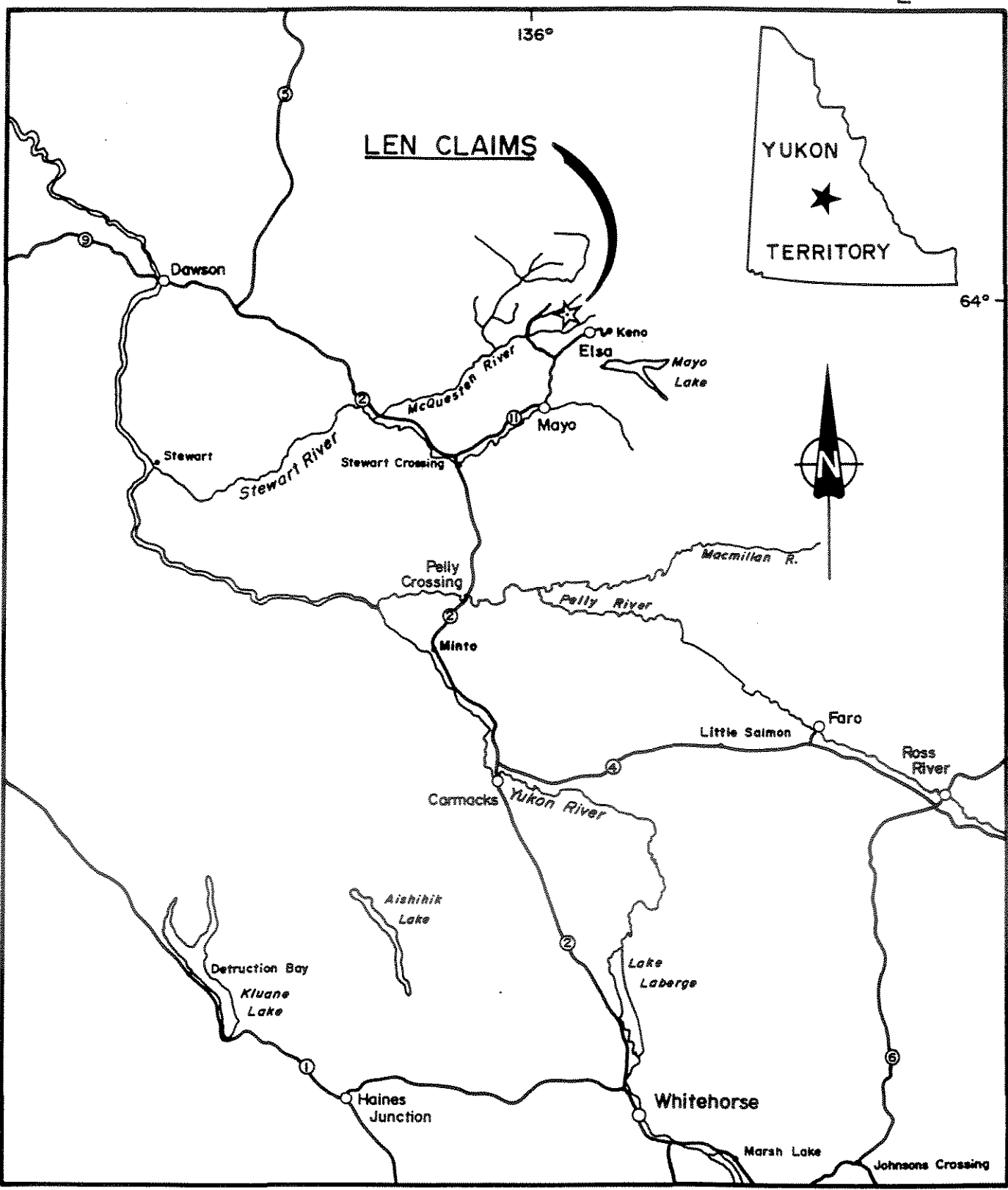
Access to the property is by helicopter. Helicopter charters are available from Mayo, located 47 kilometres to the southwest.

### Property

The Len Property consists of 8 contiguous unsurveyed two post quartz claims, (Figure 2), covering 167 hectares. The claims were staked in accordance with the Yukon Quartz Mining Act and are all within the Mayo Mining District.

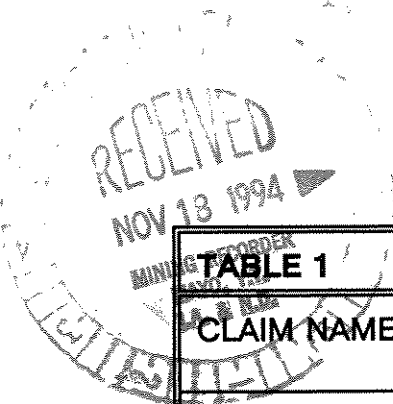
The claims were staked in 1974 by the late Gordon Dickson of Whitehorse.

Current claim data are as follows:



**LEN CLAIMS**  
Mayo M.D., Yukon Territory  
**LOCATION MAP**

Aurum Geological Consultants Inc.	October 1994
NTS 106 / D4	Scale: 2,500,000 Figure 1



**TABLE 1**      **LEN PROPERTY Claim Data**

CLAIM NAME	GRANT NUMBERS	MINING DISTRICT	EXPIRY DATE*
Len 4	YA30524	Mayo	Dec. 2, 1999
Len 6	YA30526	Mayo	Dec. 2, 1999
Len 8	YA30528	Mayo	Dec. 2, 1999
Len 10	YA30530	Mayo	Dec 2, 1999
Len 24	YA30544	Mayo	Dec 2, 1999
Len 26	YA30546	Mayo	Dec 2, 1999
Len 28	YA30548	Mayo	Dec 2, 1999
Len 30	YA30550	Mayo	Dec. 2, 1999

\* subject to approval of 1994 assessment work

## History

The area was first examined by United Keno Hill Mines Limited in 1965 following the release of stream sediment sample data collected by the Geological Survey of Canada during Operation Keno. The G claims were staked to cover a galena-siderite vein. The company prospected, soil sampled and trenched on the property but allowed the claims to lapse. The showing was restaked as the Jay claims in March of 1969 and optioned by Altair Mining Company Limited. The company established a grid on the property and conducted a soil sampling and hand trenching program later that year. The property was optioned to Belmoral Mines Limited in August of 1973. This company explored with hand trenching and drilled six EXT diamond drill holes totalling 71.6 m. These claims were allowed to lapse after 1974.

The Len claims were staked in April of 1978 to cover the original showing plus ground to the east of the showing. The property was optioned to Gold Cup Resources and Tally Resources which performed soil geochemical surveys in 1979 and 1980.

Lynx Creek, below the Skate Creek junction, was mined for placer gold in 1940 and 1941 with some limited work being performed in subsequent years. In 1980, a tungsten exploration program centred on Dublin Gulch to the northwest resulted in blanket staking of the area including the CJ claims which fringed the Len Property to the north and east. Current activity based on the "Fort Knox" model of intrusive hosted gold deposits has resulted in a renewed staking 'rush' which has the Len claims completely surrounded by claims managed by Ivanhoe Goldfields Limited.

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Len 28	YA30548	Mayo	Dec 2, 1998
Len 30	YA30550	Mayo	Dec. 2, 1998

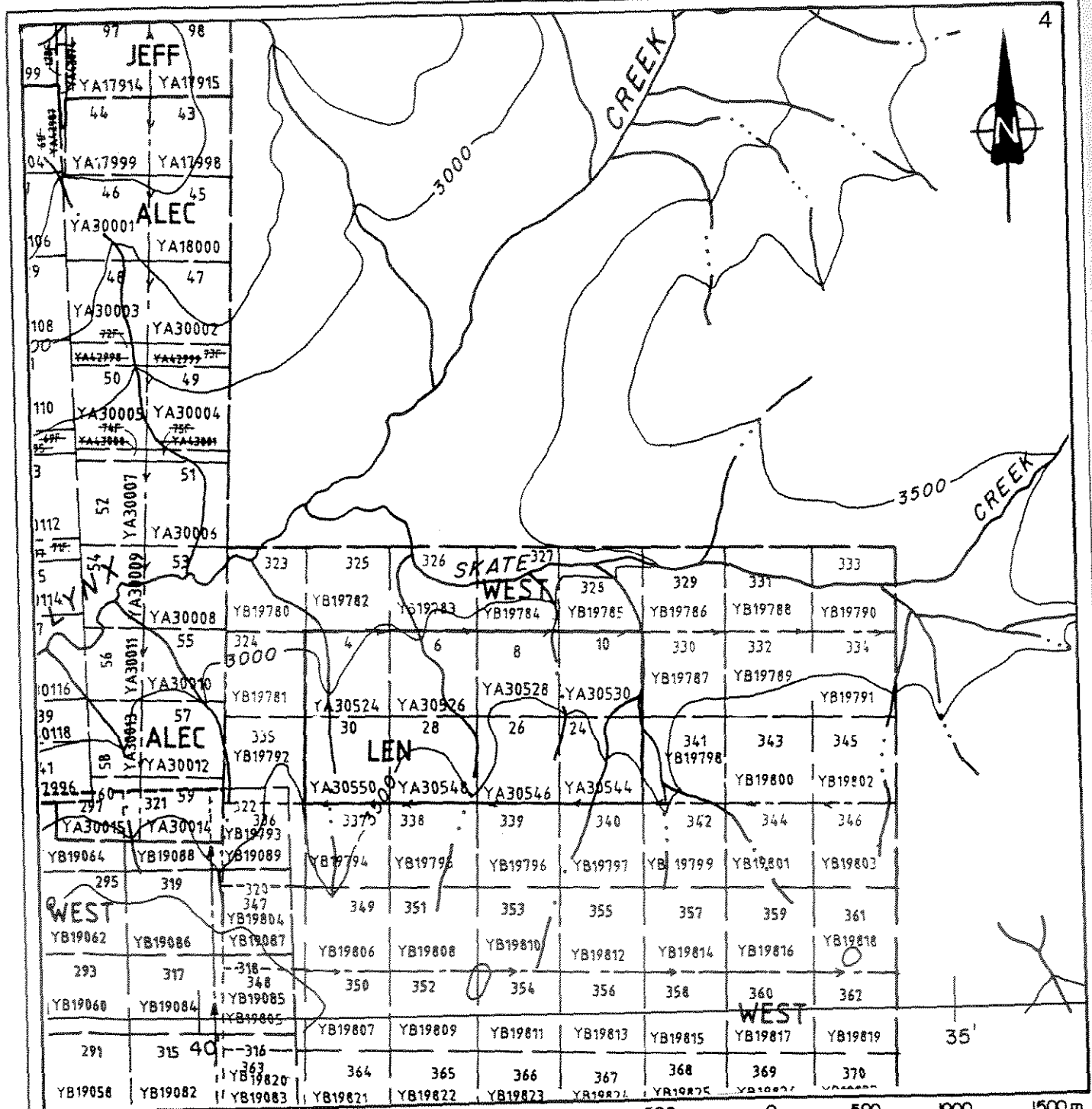
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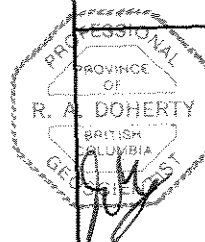


**LEGEND**

- claim boundary
- claim number
- tag number
- 4WD trail
- creek, lake
- elevation contour; interval 500 ft.

Note: adapted from D.I.A.N.D. map sheet

**Mrs. Janet Dickson**  
**Len Claims**



**CLAIM MAP**

**Aurum Geological Consultants Inc. October, 1994**  
NTS 106 D/4 DRAWN BY JvR SCALE: 1:30,000 FIGURE: 2

## Physiography, Climate and Vegetation

An interior continental climate with moderate to low precipitation (30 cm annually), warm summers and cold winters typifies the area. Permafrost is discontinuous, present only on the steeper north and east facing slopes and low, marshy, forested areas. The property is normally snow free from mid June to late September.

Relief on the property is only 350 metres, with the highest point around 1200 metres. The property is below treeline. Vegetation on the north facing slope consists of black spruce, willow and alder. The most recent glaciation did not cover this area of the Yukon except for small alpine glaciers on the highest peaks. As a result, outcrop exposure is poor (~5%) except on ridge tops and incised drainage channels and gullies.

## GEOLOGY

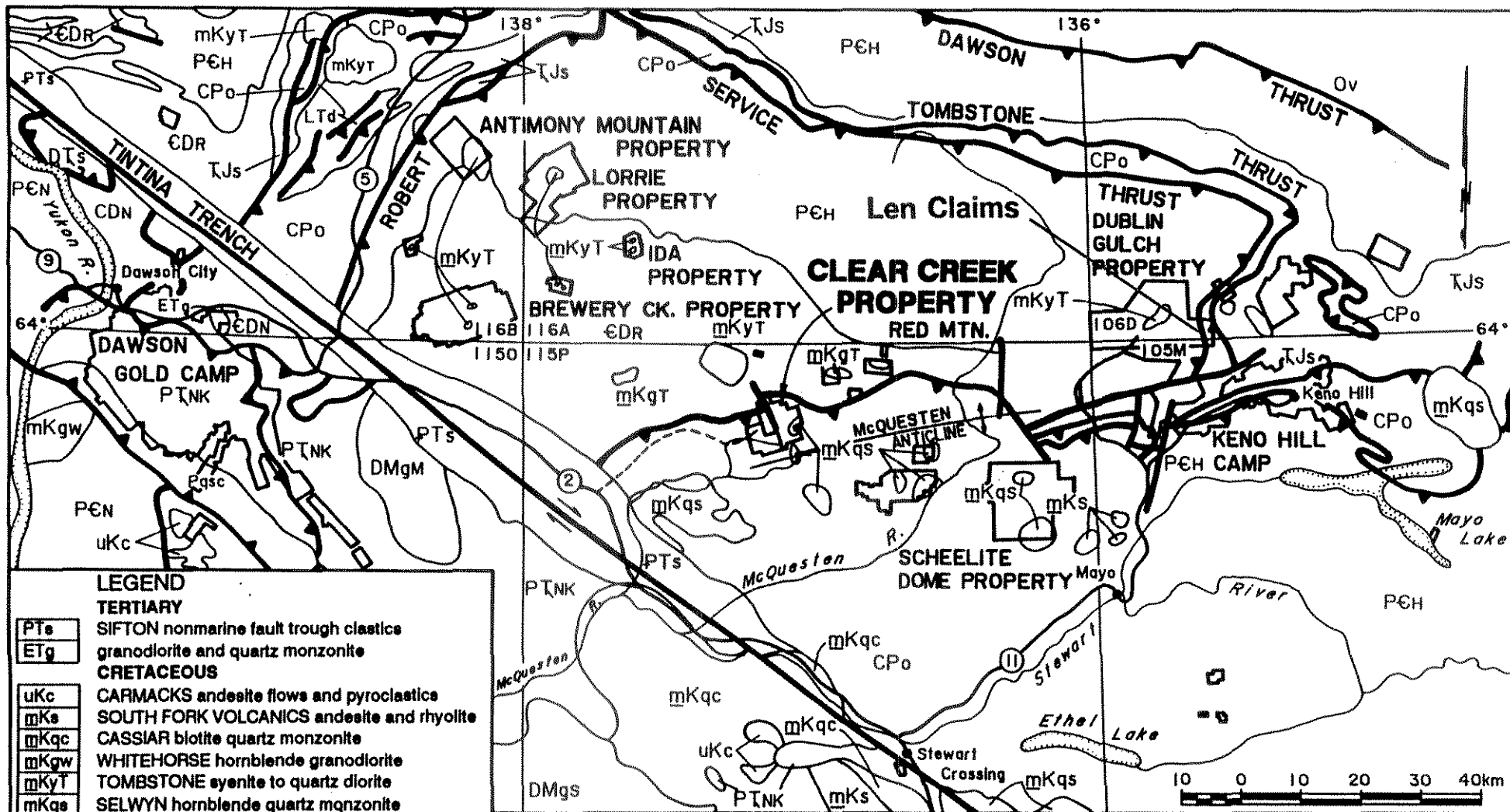
### Regional Geology

The Len Property is situated within the western portion of the Selwyn Basin, (Figure 3). The geology of the Nash Creek map area (NTS 106 D) has been mapped by L.H. Green (1972) at a scale of 1:253,440.

The Selwyn Basin is imperfectly defined (Abbott et al, 1986) and is used here to describe that part of the Cordilleran miogeocline comprised of a prism of Proterozoic to Mesozoic sedimentary rocks deposited along the western margin of ancient North America. The eastern margin of the basin is marked by the Paleozoic shale-carbonate contact while the western margin is in fault contact with accreted terranes. The sedimentary basin was active from the Late Proterozoic to Middle Jurassic time (Abbott et al., 1986) and is attributed to rifting at or near the western margin of ancient North America.

Selwyn Basin rocks were deformed during the Jura-Cretaceous compressional tectonic event. This event generated several regional thrust faults, namely the Robert Service, Tombstone, and Dawson thrusts, that moved large packages of Selwyn Basin rocks to the north. The Dawson Thrust juxtaposes 'offshelf' rocks from the south against 'shelf' rocks to the north (Abbott, 1993). The Robert Service thrust underlies and defines one of the largest thrust sheets in the Canadian Cordillera (Murphy et al., 1993a). It extends eastward from Dawson City area through the Keno Hill Silver Camp and into the Lansing area northeast of Mayo Lake. The Robert Service thrust typically juxtaposes Upper Proterozoic Hyland Group rocks against Mississippian Keno Hill 'quartzite' (Murphy et al., 1993a). Early Cretaceous granitic stocks and sills intrude both thrust sheets (Roots & Murphy, 1992)

Two suites of granitoid intrusives, ranging from Paleozoic to Cenozoic age, related



LEGEND	
<b>TERTIARY</b>	
PTs	SIFTON nonmarine fault trough clastics
ETg	granodiorite and quartz monzonite
<b>CRETACEOUS</b>	
uKc	CARMACKS andesite flows and pyroclastics
mKa	SOUTH FORK VOLCANICS andesite and rhyolite
mKqc	CASSIAR biotite quartz monzonite
mKgw	WHITEHORSE hornblende granodiorite
mKyT	TOMBSTONE syenite to quartz diorite
mKqs	SELWYN hornblende quartz monzonite
<b>TRIASSIC-JURASSIC</b>	
TJs	SPRAY RIVER shale, mudstone, limestone
LTd	gabbro sills
<b>PERMIAN</b>	
Pqsc	SULPHER CREEK foliated quartz monzonite
<b>DEVONIAN-CARBONIFEROUS</b>	
CPo	KENO HILL quartzite, sandstone, shale
DMgm	MINK CREEK granite, augen gneiss
DMgs	SIMPSON RANGE hornblende biotite granodiorite
<b>CAMBRIAN-DEVONIAN</b>	
Ov	dolomite, limestone, sandstone, shale
EDR	ROAD RIVER shale, limestone, dolomite, sandstone
CDN	NASINA quartzite, schist, marble

UPPER PROTEROZOIC-CAMBRIAN	
PTNK	NISUTLIN cataclastic sediments and volcanics
PEN	NISLING schist, phyllite, slate
PCH	HYLAND schist, slate, phyllite, sandstone, limestone
	Thrust fault (teeth on upper plate)
	Lateral fault with movement direction
	River, lake
	Road
	Seasonal Road
	Property boundary

**Mrs. Janet Dickson**  
**Len Claims**

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**REGIONAL GEOLOGY**

PROFESSIONAL  
PROVINCE  
OF  
R. A. DOHERTY  
GEOLOGICAL  
ENGINEER

**Aurum Geological Consultants Inc.** | **October, 1994**

NTS 106 D/4 | DRAWN BY JVR | SCALE 1:30,000 | FIGURE: 2

to underplating and or subduction, are found on both sides of the Tintina fault. Granitoid emplacement peaked during the Early-Middle Cretaceous (Tempelman-Kluit, 1981). The Western Suite of granitoid intrusives, found west and southwest of the Selwyn Basin, are predominantly granodiorite in composition and are associated with porphyry copper - molybdenum and copper skarn deposits. The Eastern or Selwyn Plutonic Suite of granitoid intrusives are distributed along a northwest trending arcuate belt within the Selwyn Basin. The Selwyn Plutons are mainly granitic in composition, and are associated with tin, tungsten, and molybdenum mineralization (Emond, 1992).

Regional metamorphism has imprinted a greenschist facies metamorphic mineral assemblage on the Hyland Group rocks. Contact metamorphic aureoles surround the intrusive bodies producing biotite hornfels enriched in iron, tin-tungsten skarns, and precious metals. Often the larger intrusions have a low magnetic signature surrounded by an area of high magnetic relief related to the hornfelsed zone.

## Metallogeny

The Len Property is located within the McQuesten Mineral Belt on the northern limb of the east trending McQuesten anticline in the Selwyn Basin (Aho, 1962; Emond, 1992). The McQuesten mineral belt is a 30-50 km wide and 140 km long east-west trending belt consisting of a major transverse zone of east-northeast trending folds, Cretaceous felsic intrusions, and related Au, Sn, W, and Ag mineralization. The Cretaceous felsic stocks are found throughout the McQuesten anticline and extend from Clear Creek in the west to past the well known Keno Hill Silver Camp in the east. Mineralization consists of: tin-tungsten and gold, silver-lead-zinc veins, and silver-lead-antimony veins. Mineralization associated with felsic stocks occur at Clear Creek, Red Mountain, Dublin Gulch, and Scheelite Dome (Aho, 1963; Emond and Lynch, 1992; Emond, 1992). Regional geochemical surveys over the McQuesten belt (Hornbrook and Friske, 1987) show strong geochemical signatures for Au, As, Sb, W and Sn associated with the intrusive stocks in the area. Bismuth shows a strong correlation with gold (Emond 1986).

The Cretaceous stocks are known to host Sn, W, Au, Bi, As, and Sb. Distal hydrothermal mineralization associated with the intrusions consists of Pb-Zn-Ag veins is best exemplified by the Keno Hill Silver Camp.

Recent work in age determination (Murphy and Heon, 1994; Murphy and Mortensen, in press) has defined three intrusive events in the eastern Selwyn Basin. The Selwyn suite (98-104 ma), the Tombstone suite (92-94 ma), and the McQuesten suite (64 ma). The Pukleman, Red Mountain and Potato Hills (Dublin Gulch) stocks are all part of the Tombstone suite which, available data indicate, is the primary intrusive event that hosts intrusive gold mineralization.

## Deposit Model

The exploration target on the Len Property is a bulk tonnage low grade gold 'Fort Knox' style deposit. Current total mineable proven and probable reserves on the Fort Knox deposit stand at 174.5 million tons grading 0.024 opt (0.82 g/t) gold (Northern Miner, 1993).

The 'Fort Knox' deposit model is one of intrusive hosted gold genetically related to a porphyritic granite stock. The genesis of the 'Fort Knox' deposit is comparable to porphyry copper or porphyry molybdenum systems and, as such, these deposits may be classified as a 'porphyry gold' system (Hollister, 1991). Deuteric and hydrothermal fluids deposited economic concentrations of native gold within the granite during and after emplacement of the stock. Mineralization may be concentrated near the roof of the intrusion which makes still capped portions of the intrusion good exploration targets.

The deposits are sulphide deficient; gold is associated with trace amounts of molybdenum, tungsten and bismuth. Mineralization is primarily within quartz stockwork sheeted veins, and shears within the intrusive although gold is also found as disseminations within the stock (Hollister, 1991). Associated minerals are molybdenite, scheelite, arsenopyrite, pyrite, and bismuthinite.

Potassic, phyllic, and argillic alteration is locally present within the intrusive (Hollister, 1991). Generally, small amounts of potassium feldspar, sericite, and or clay minerals are found within or as thin selvages adjacent to the mineralized quartz veins. Post mineral veins consist of calcite, calcite-quartz, and clay. Tourmalinization is common in the host intrusion. Overall alteration is incipient and can easily go unrecognized.

The Dublin Gulch Intrusive-Hosted gold deposit, located approximately six kilometres to the west-northwest, was discovered by geologists with Ivanhoe Goldfields Ltd., shortly after the 'Fort Knox' deposit in Fairbanks, Alaska, was advanced to the feasibility stage. Amax Gold (B.C.) Ltd., purchased the Fort Knox deposit from Fairbanks Gold Ltd., and optioned the Dublin Gulch Property from Ivanhoe Goldfields Ltd. in late 1991.

Both these large reserves of bulk mineable gold at Fort Knox and Dublin Gulch are located in currently active placer gold camps. These properties are also characterized by large gold in soil anomalies over and immediately adjacent to the intrusive stocks. Most gold anomalies on the properties correlate with either bismuth or tungsten or both.

## PROPERTY GEOLOGY

The central and eastern portions of the property were mapped at 1:10,000 scale by C. McAtee in 1980 for Tally Resources Inc. Modifications of his map have been

produced subsequently.

The Len Property, and surrounding area, is underlain by variably deformed, low-grade metamorphosed metasedimentary rocks of the Proterozoic Hyland Group in fault contact with Mississippian quartzite informally named Keno Hill Quartzite.

The Hyland Group is part of a warped northerly dipping structural panel (Murphy et al., 1993a), which has been intruded by a number of Cretaceous stocks and dykes. Stratigraphic relations are difficult to recognize within the Hyland Group due to the lack of marker horizons, poor outcrop exposure (~5%), degree of metamorphism, and deformation in the area.

The Keno Hill Quartzite was mapped as three distinct quartzite units on the Len Property. The units have been described as: fine grained, banded grey quartzite; sheared, dark green quartzite; and very fine grained, sucrosic, white to buff to grey quartzite. All of these units exhibit varying degrees of sericitization, silicification and limonite staining. A thin bedded, foliated limestone unit occurs to the northeast of the main showing.

The Robert Service Thrust is projected through the property which separates the limestone from a Cretaceous granodiorite stock. The equigranular and locally megacrystic granitic stock intrudes the metasedimentary rocks in the south central portion of the property. Moderate hornfelsing of the host metasedimentary rocks is expressed by biotite plus sulphide alteration of the quartzite.

## MINERALIZATION

The majority of the trenching and drilling on the property to date has been on a Keno Hill type siderite-galena vein-fault with low silver/lead ratio of 2:1. McAtee (1980) reported an average grade from chip samples of 11.55 opt Ag, 4.98% Pb, 5.05% Zn and 0.014 opt Au. The 2.7 metre wide, northwest striking vein has been traced for 61 metres and dips 20 to the northeast. Galena occurs as narrow stringers and veinlets along the hanging wall and footwall. Previous grid sampling and stream sediment sampling (McAtee, 1980) has outlined several anomalies of Pb with Ag with or without Zn in the metasediments. Also, two 350 by 400+ metre arsenic anomalies were outlined on the eastern and western fringes of the granodiorite intrusion.

Recent efforts have been directed toward evaluating the Cretaceous Granodiorite stock in the centre of the property for its Fort Knox style of mineralization. The stock has little exposure but exhibits both 'dry' fracturing and quartz filled veining common on other deposits of this type. The fractures and veinlets are variably mineralized with up to 3% arsenopyrite plus pyrite, and rare chalcopyrite.

The area trenched in 1994, coincides with previously outlined arsenic and lead in soil anomalies, (figure 4) and is at the Western edge of the intrusive granodiorite body contact. This location also corresponds to the projected thrust fault contact between the Hyland Group schists and limestones and the Keno Hill quartzites.

## EXPLORATION RESULTS

Six small trenches were hand excavated during the 1994 season. The trenches were dug within the granodiorite intrusion in the central portion of the property, and are proximal to areas of extensive quartz float and limonite staining, (figure 4).

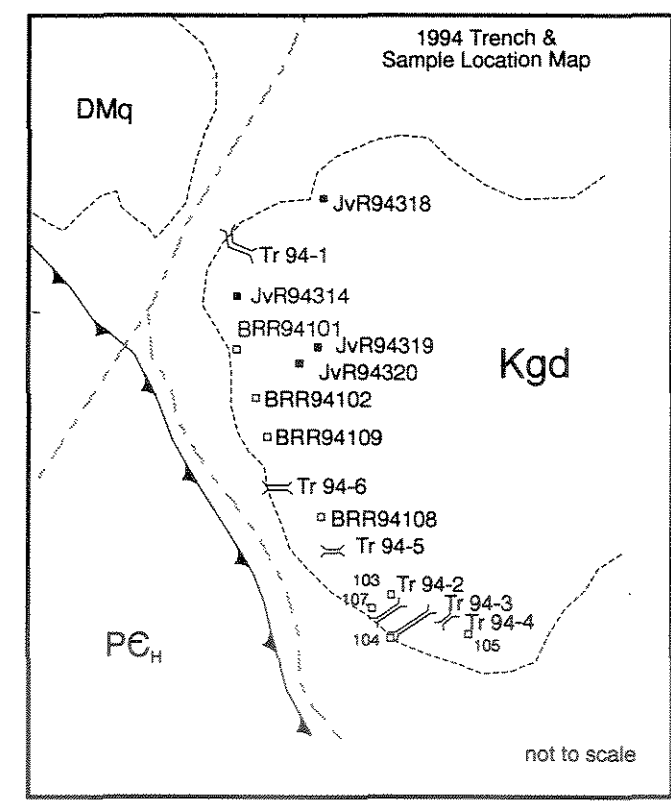
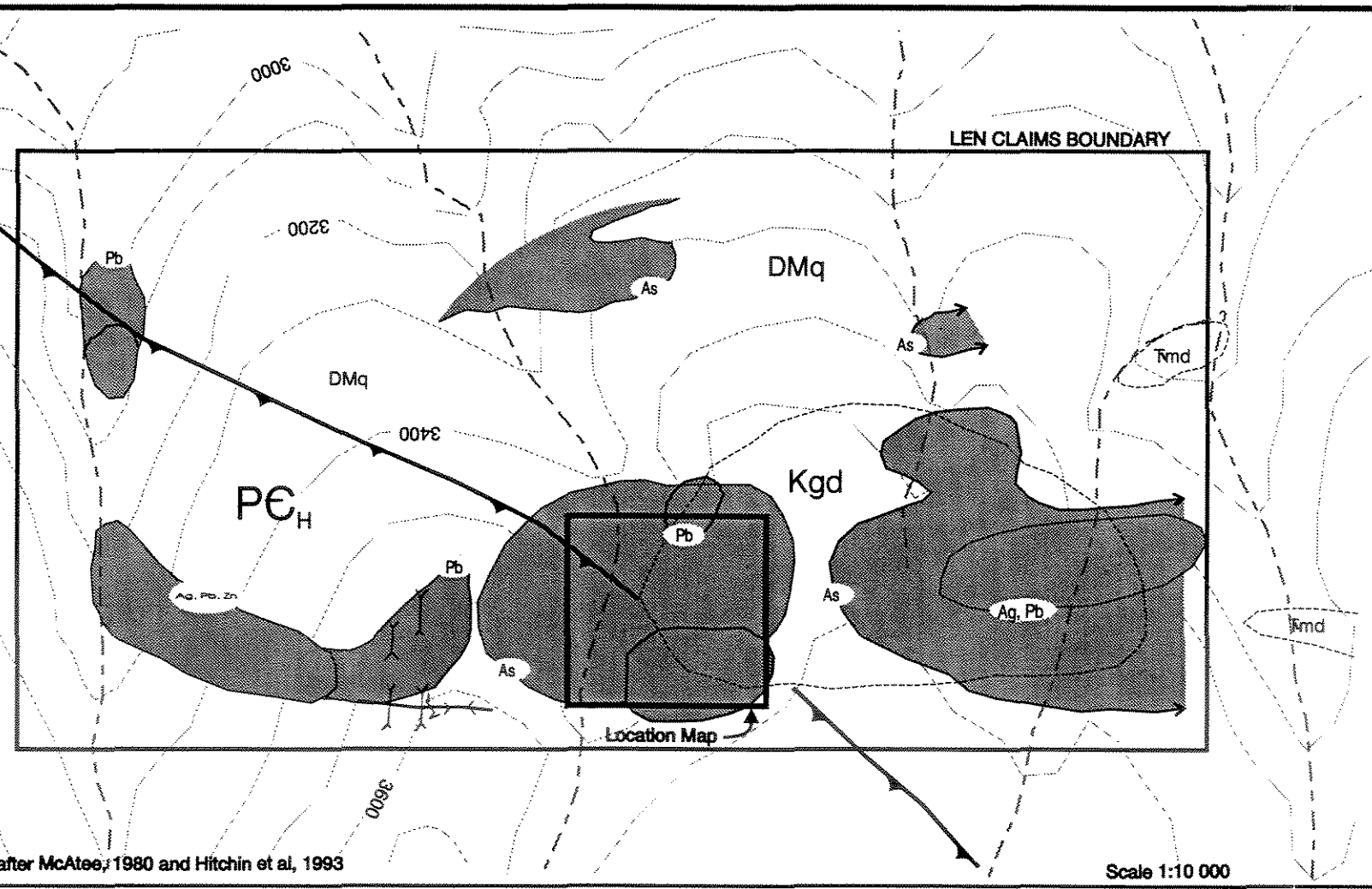
A total of 41 rock samples were collected in, and around, the hand trenches. The majority of these samples consist of variably altered granodiorite, which often contained fine grained sulfides (arsenopyrite >> pyrite > chalcopyrite). Ten samples were made up of intensely rusty quartz vein material, up to 45 cm wide, hosted in altered granodiorite. The vein was not located in outcrop, however, the rocks at the bottom of trenches were angular and appeared relatively un-transported.

Trench 94-1 was excavated to test the depth of bedrock, and possible mineralization, near the intrusive contact with the large quartzite outcrop on the west side of the north draining creek. Samples JvR94315-317 were collected from the bottom of the trench and consisted of variably altered granodiorite subcrop with up to 5 mm quartz stringers and dry fractures hosting up to 3% total sulfides (pyrite >> arsenopyrite >>> chalcopyrite). Gold values ranged up to 30 ppb Au, most elements returned values considered close to their respective background levels.

Trenches 94-2 to 94-6 were completed to expose a 45 cm rusty quartz vein hosted in locally stockworked granodiorite. None of the five trenches located a bedrock source, however angular quartz and locally stockworked granodiorite was unearthed in each trench.

Table 2. Geochemical Statistics (1994 Rocks)						
Element	n	Max	Min	STD	Mean	>95%tile
Au (ppb)	41	780	<5	120.51	32.1	100
As (ppm)	41	>10,000	4	3054.8	1759.5	>10,000
Bi (ppm)*	41	16	<2	2.31	1.39	<2

\*see text



### LEGEND

#### Lithologies

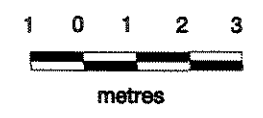
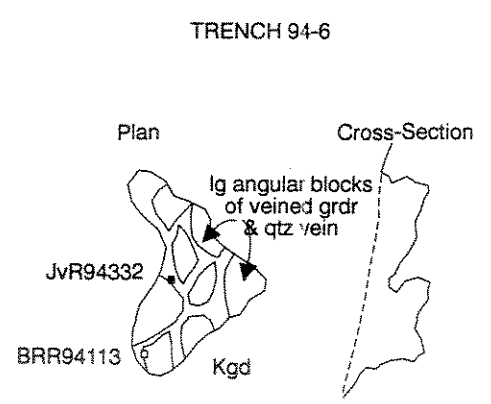
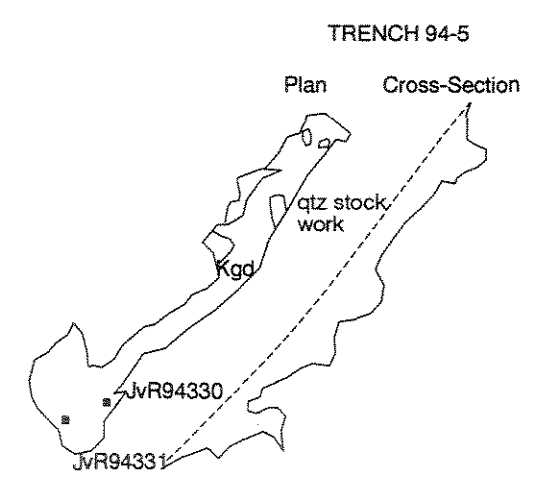
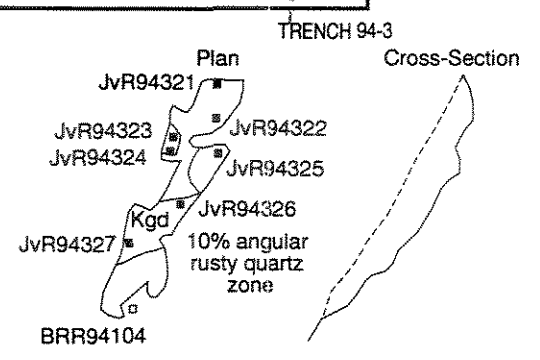
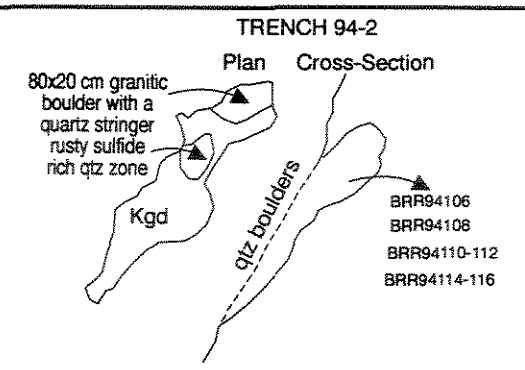
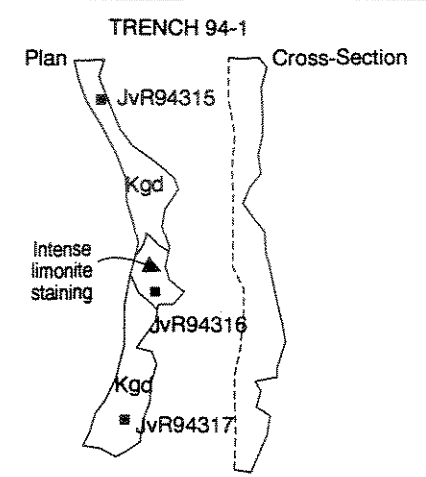
- CRETACEOUS
- Kgd** granodiorite
- TRIASSIC
- Tmd** mafic dykes
- DEVONIAN-MISSISSIPPIAN
- DMq** Keno Hill quartzite
- UPPER PROTEROZOIC? TO LOWER CAMBRIAN?
- PE<sub>H</sub>** Hyland Group: schist, limestone

#### Symbols

- geologic contact
- creek
- elevation contour (100ft)
- approximate claim boundary
- qtz vein
- trench (pre- 1994, 1994)
- thrust fault
- Geochemical Anomaly
  - Pb > 60 ppm
  - As > 300 ppm
  - Zn > 300 ppm
  - Ag > 0.8 ppm
- Open Anomaly



Modified after McAtee, 1980 and Hitchin et al, 1993



093253 DWG1

<b>MRS. JANET DICKSON</b>	
<b>LEN PROPERTY</b>	
	<b>GEOLOGY &amp; TRENCH MAPS</b>
AURUM GEOLOGICAL CONSULTANTS INC. DATE: OCT 1994	
NTS: 106 D/4	DRAWN BY: JvR
SCALE: varies	FIGURE: 4

The highest 1994 result was from Trench 94-2, in which sample BRR94115 yielded coincident >95%tile anomalies for gold, arsenic, and bismuth (780 ppb, >10,000 ppm, 16 ppm, respectively). BRR94115 also returned the highest values for antimony (100 ppm Sb) and molybdenum (14 ppm Mo) and elevated copper, lead and zinc results. The sample consisted of limonitic quartz vein material with abundant visible fine grained sulfides concentrated in hair-like veinlets and fracture fillings.

A total of three out of 41 rock samples collected, are within the >95%tile anomalous range for gold, however, 14 samples returned gold values between 5 and 780 ppb Au. Arsenic highs ranged from 4 to >10,000 ppm As and the average result was calculated to be 1759 ppm As.

The bismuth results were generally at the detection limit for that element, and therefore, statistical analysis was not valid due to the low variance of the sample population. The highest Bismuth result was 16 ppm Bi (reported from BRR94115).

## CONCLUSIONS AND RECOMMENDATIONS

The Len Property is underlain by a sequence of metamorphosed and deformed sedimentary rocks of the Late Proterozoic-Early Paleozoic Hyland Group. These rocks are intruded by a Cretaceous granodiorite stock.

The property is a bulk tonnage, low grade, gold deposit target similar to the Fort Knox and Dublin Gulch deposits.

Six trenches in areas of mineralized granodiorite were completed during the 1994 exploration program. Up to 3% sulfides are found on dry fractures within the granodiorite. Arsenopyrite, pyrite and occasional chalcopyrite make up the majority of sulfides. The granodiorite also contains narrow (<2 cm) quartz stringers subparallel to the dry fractures. One 45 cm quartz vein in subcropping granodiorite was found.

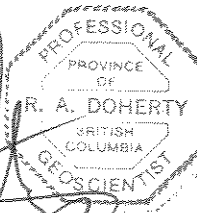
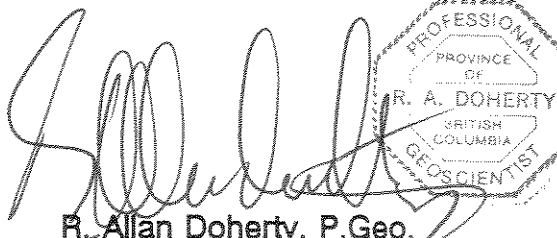
A total of 41 rock samples were collected from the five trenches and the analytical results for gold ranged from 5 to 780 ppb Au. Several other significant gold +/- coincident arsenic and /or bismuth anomalies were outlined during the limited exploration work conducted in 1994.

With 'Fort Knox' style mineralization as a target, future work should consist of systematic mapping and follow-up sampling of all existing quartz stockwork zones within the Cretaceous stock, and detailed prospecting over the entire property. Areas of poor rock exposure should be explored with reconnaissance auger soil sampling to obtain the maximum sample depth.

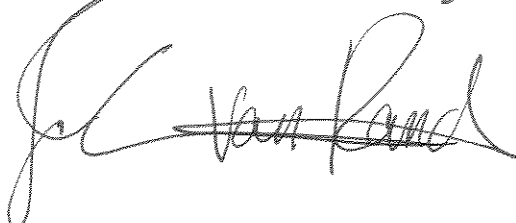
The following work program is recommended:

1. Compile a 1:5,000 scale map of the Len Property incorporating all available geochemical and remote sensing data to better identify potential exploration targets.
2. Further exploration consisting of prospecting, geological mapping, rock, soil, and stream sediment geochemistry should be carried out over and adjacent to the known granitic intrusion.
3. Any further work (geophysics, trenching, etc.) is contingent on results of the above work.

Respectfully submitted;  
*Aurum Geological Consultants Inc.*



R. Allan Doherty, P. Geo.



Jo-Anne vanRanden, B.Sc.

October 25, 1994

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**STATEMENT OF QUALIFICATIONS (RAD)**

I, R. Allan Doherty, with business address:  
Aurum Geological Consultants Inc.  
205 - 100 Main Street  
P.O. Box 4367  
Whitehorse, Yukon  
Y1A 3T5

1. I am a geologist with AURUM GEOLOGICAL CONSULTANTS INC., 205 - 100 Main Street, P.O. Box 4367, Whitehorse, Yukon.
2. I am a graduate of the University of New Brunswick, with a degree in geology (Hons. B.Sc., 1977) and that I attended graduate school at Memorial University of Newfoundland (1978-81). I have been involved in geological mapping and mineral exploration continuously since then.
3. I am a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia, Registration No. 20564, and of the CIMM.
4. I have based this report on my knowledge of the area and on referenced sources.
5. I have no direct or indirect interests in the properties or securities owned by Mrs. Janet Dickson.
6. I consent to the use of this report by Mrs. Janet Dickson provided that no portion is used out of context in such a manner as to convey a meaning differing materially from that set out in the whole.

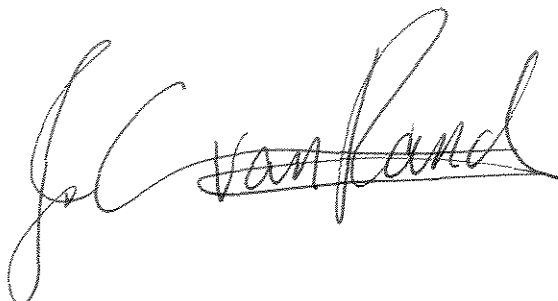
October 28, 1994

R. Allan Doherty, P.Geol.

**STATEMENT OF QUALIFICATIONS (JvR)**

I, Jo-Anne vanRanden, hereby certify that:

1. I am a geologist with AURUM GEOLOGICAL CONSULTANTS INC., 205 - 100 Main Street, P.O. Box 4367, Whitehorse, Yukon, Y1A 3T5.
2. I am a graduate of the University of British Columbia, with a degree in geology (B.Sc., 1989). I have been involved in mineral exploration continuously since 1982.
3. I am co-author of this report on the Len Claims Property of Mrs. Janet Dickson, which is based on my examination of the property (August 22-24, 1994) and on referenced sources.
4. I have no direct or indirect interest in the properties or securities owned by Mrs. Janet Dickson.
5. I consent to the use of this report by Mrs. Janet Dickson provided that no portion is used out of context in such a manner as to convey a meaning differing materially from that set out in the whole.

A handwritten signature in black ink, appearing to read 'Jo-Anne vanRanden', written in a cursive style.

October 28, 1994

Jo-Anne vanRanden, B.Sc.

## STATEMENT OF COSTS

1994 Assessment Work Valuation; Len Claims, 106 D/4

### Geological and Geochemical

#### A. Fieldwork

J. vanRanden, B.Sc., of Whitehorse, Yukon August 22-24, 1994; 3 days @ \$350/day:	\$1050.00
B. Sauer, Prospector, of Vancouver, B.C. August 22-24, 1994; 3 days @ \$300.00/day:	\$900.00
C. Fox, Geological Assistant, of Halifax, N.S. August 22-24, 1994; 3 days @ \$200.00/day:	\$600.00

#### B. Geochemical Analysis

41 rock samples @ \$20.25 ea (+ \$71.10 freight)	\$901.35
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#### C. Support Costs

Field Expenses:	\$540.00
Helicopter:	\$1,461.39
Truck rental & Gasoline:	\$104.83

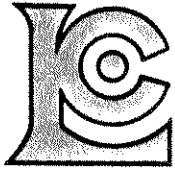
#### D. Research and Report Preparation

A. Doherty, P.Geo. 0.5 days @ \$350.00/day:	\$175.00
D. Ouellette, B.Sc., 2.0 days @ \$300.00/day:	\$600.00
J. vanRanden, B.Sc., 5.0 days @ \$300.00/day:	\$1,500.00

Goods and Service Tax (@ 7%) on \$7,832.57:	<u>\$548.27</u>
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<b>Total Valuation of 1994 Assessment Work:</b>	<b>\$8,380.84</b>
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**APPENDIX A**  
**ANALYTICAL METHODS AND REPORTS**



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: AURUM GEOLOGICAL CONSULTANTS INC.

P.O. BOX 4367  
WHITEHORSE, YT  
Y1A 3T5

A9427009

Comments: ATTN: JO-ANNE VANRANDEN

**CERTIFICATE**

**A9427009**

(LIS) - AURUM GEOLOGICAL CONSULTANTS INC.

Project: 15  
P.O. #:

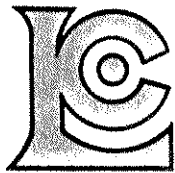
Samples submitted to our lab in Vancouver, BC.  
This report was printed on 30-SEP-94.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	41	Geochem ring to approx 150 mesh
294	41	Crush and split (6-10 pounds)
229	41	ICP - AQ Digestion charge

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	41	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
2118	41	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
2120	41	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2123	41	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2128	41	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2131	41	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2136	41	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2140	41	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	41	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2149	41	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221

To: AURUM GEOLOGICAL CONSULTANTS INC.

P.O. BOX 4367  
 WHITEHORSE, YT  
 Y1A 3T5

Project : 15  
 Comments: ATTN: JO-ANNE VANRANDEN

Page Number : 1  
 Total Pages : 2  
 Certificate Date: 30-SEP-94  
 Invoice No. : 19427009  
 P.O. Number :  
 Account : LIS

## CERTIFICATE OF ANALYSIS A9427009

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	As ppm	Bi ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm
BRR94-101	205 294	55	< 0.2	94	< 2	9	< 1	1	4	< 2	46
BRR94-102	205 294	40	< 0.2	82	< 2	9	< 1	2	2	< 2	18
BRR94-103	205 294	10	< 0.2	32	< 2	7	< 1	2	6	< 2	38
BRR94-104	205 294	< 5	< 0.2	16	< 2	1	< 1	2	6	< 2	28
BRR94-105	205 294	< 5	< 0.2	1355	< 2	39	1	6	4	< 2	22
BRR94-106	205 294	5	< 0.2	2020	< 2	10	< 1	7	6	< 2	22
BRR94-107	205 294	15	< 0.2	284	< 2	27	< 1	3	6	< 2	24
BRR94-108	205 294	< 5	< 0.2	16	< 2	3	< 1	2	2	< 2	12
BRR94-109	205 294	< 5	< 0.2	268	< 2	1	< 1	1	6	< 2	84
BRR94-110	205 294	< 5	< 0.2	4800	< 2	22	< 1	2	6	2	14
BRR94-111	205 294	< 5	< 0.2	42	< 2	1	< 1	3	4	< 2	16
BRR94-112	205 294	< 5	< 0.2	5220	< 2	20	< 1	3	4	< 2	14
BRR94-113	205 294	100	< 0.2	>10000	< 2	3	< 1	1	< 2	4	< 2
BRR94-114	205 294	50	< 0.2	>10000	< 2	2	< 1	2	< 2	2	10
BRR94-115	205 294	780	< 0.2	>10000	16	14	< 1	14	20	100	12
BRR94-116	205 294	< 5	< 0.2	1905	< 2	38	< 1	2	6	4	16
BRR94-117	205 294	20	< 0.2	5810	< 2	6	< 1	1	2	2	20
JVR94-314	205 294	< 5	< 0.2	48	< 2	7	< 1	1	8	4	48
JVR94-315	205 294	< 5	< 0.2	84	< 2	6	< 1	2	8	< 2	34
JVR94-316	205 294	30	< 0.2	12	< 2	13	< 1	4	4	< 2	36
JVR94-317	205 294	5	< 0.2	52	< 2	5	< 1	1	6	< 2	6
JVR94-318	205 294	10	< 0.2	1625	< 2	3	< 1	1	< 2	< 2	4
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JVR94-320	205 294	< 5	0.2	8	< 2	21	< 1	2	68	< 2	632
JVR94-321	205 294	< 5	< 0.2	54	< 2	6	< 1	2	4	< 2	30
JVR94-322	205 294	< 5	< 0.2	18	2	7	< 1	2	6	2	44
JVR94-323	205 294	10	< 0.2	3160	< 2	6	< 1	2	2	< 2	10
JVR94-324	205 294	5	< 0.2	258	< 2	7	< 1	< 1	2	< 2	8
JVR94-325	205 294	< 5	< 0.2	828	< 2	7	< 1	1	< 2	< 2	4
JVR94-326	205 294	< 5	< 0.2	674	< 2	8	< 1	1	4	< 2	8
JVR94-327	205 294	100	< 0.2	>10000	< 2	< 1	< 1	1	< 2	8	2
JVR94-328	205 294	< 5	< 0.2	702	< 2	7	1	1	2	< 2	14
JVR94-329	205 294	5	< 0.2	600	< 2	13	< 1	1	4	4	32
JVR94-330	205 294	< 5	< 0.2	790	< 2	4	< 1	1	< 2	< 2	2
JVR94-331	205 294	< 5	< 0.2	176	< 2	2	< 1	< 1	< 2	< 2	6
JVR94-332	205 294	< 5	< 0.2	598	< 2	4	< 1	1	< 2	< 2	4
CFR94-102	205 294	< 5	< 0.2	254	< 2	10	< 1	1	6	4	30
CFR94-103	205 294	< 5	< 0.2	32	< 2	4	< 1	3	8	< 2	44
CFR94-104	205 294	< 5	< 0.2	100	< 2	6	< 1	2	4	< 2	24
CFR94-105	205 294	< 5	< 0.2	4	< 2	4	< 1	3	4	< 2	40

CERTIFICATION:

*Hart Buchler*



**APPENDIX B**  
**ROCK SAMPLE DESCRIPTIONS**

## ROCK SAMPLE AND DESCRIPTION RECORD

AURUM GEOLOGICAL CONSULTANTS INC.

Date: September 22, 1994

Project: #04

Area: Len Claims (near Dublin Gulch)

Page: 1 of 2

SAMPLE NO.	LOCATION	DESCRIPTION	TYPE	WIDTH
JvR94 314	See Map	Granodiorite with a 2cm qtz stringer, <1% pyrite	grab	/
JvR94 315	Trench 94-1	Same as JvR94 314 wi only two 0.5cm qtz stringers	grab	/
JvR94 316	Trench 94-1	Rusty grdr, dry fractures contain <3% sx (py>>apy)	grab	/
JvR94 317	Trench 94-1	Grdr with <1%pyrite, trace cpy, one 2mm qtz stringer	grab	/
JvR94 318	See Map	Grdr/ qtzite contact, rusty intrusive	grab	/
JvR94 319	"	Granodiorite with a 3cm quartz stringer, no sx	grab	/
JvR94 321	Trench 94-3	Granitic boulder in trench with 4cm qtz stringer, no sx	chip	0.43m
JvR94 322	"	Angular rusty quartz subcrop in granite, <1% py blebs	grab	/
JvR94 323	"	Silicified granodiorite, 3% sx (apy>>>euhedral py)	grab	/
JvR94 324	"	Quartz vein material (angular and rusty), rare apy	grab	/
JvR94 325	"	Granodiorite with four 1cm qtz stringers, no sx	grab	/
JvR94 326	"	Qtz vein (35cm wide), 2% sx apy >> py [] along margins	grab	/
JvR94 327	"	Bull white qtz boulder, (20X30 cm), apy blebs < 3%	grab	/
JvR94 328	Trench 94-4	Qtz in bottom of trench, 10% open space, <1% apy	grab	/
JvR94 329	"	Grdr boulder with, 4 cm qtz rich zone, 1% sx Apy>>py	grab	/

