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A Report on the  
Bedrock Geology and Geochemistry  
Indian River Claim Group,  
Darling Township, Lanark County  
Eastern Ontario Mining District  
NTS 31F/02

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MINING LANDS SECTION

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1.0	INTRODUCTION . . . . .	1
2.0	LOCATION AND ACCESS . . . . .	1
3.0	DESCRIPTION OF CLAIMS . . . . .	1
4.0	TOPOGRAPHY AND VEGETATION . . . . .	3
5.0	PREVIOUS WORK . . . . .	3
6.0	WORK COMPLETED . . . . .	4
7.0	BEDROCK GEOLOGY . . . . .	5
	7.1. General . . . . .	5
	7.2. Lithologies . . . . .	6
	7.2.1. Metasediments (unit 2) . . . . .	6
	7.2.1.1. Quartz-biotite schist (unit 2c) . . . . .	6
	7.2.1.2. Graphitic slates . . . . .	6
	7.2.1.3. Argillites (unit 2g) . . . . .	6
	7.2.2. Carbonates (unit 3) . . . . .	6
	7.2.2.1. Dolomite (unit 3a) . . . . .	7
	7.2.2.2. Ferroan Dolomite (unit 3ax) . . . . .	7
	7.2.3. Granitic intrusives (unit 4) . . . . .	7
	7.2.4. Lavant Gabbro Complex (unit 5) . . . . .	7
	7.2.5. Mafic Mylonite (unit 7a) . . . . .	8
	7.2.6. Iron-formations (unit 11) . . . . .	8
	7.2.6.1. Iron-formation (unit 11A) . . . . .	8
	7.2.6.2. Pyroclastics (unit 11b) . . . . .	8
	7.2.6.3. Metasediments (unit 11c) . . . . .	8
	7.2.7. Volcanic Rocks (unit 12) . . . . .	9
	7.3. Structure . . . . .	9
	7.4. Alteration . . . . .	10
	7.5. Economic Geology . . . . .	11
8.0	DISCUSSION . . . . .	13
9.0	RECOMMENDATIONS . . . . .	14
10.0	REFERENCES . . . . .	16

LIST OF TABLES

1. Staking and recording dates of the Indian River Claims. . .2

LIST OF MAPS

1. Geology of the Indian River Claims. . . . .(in pocket)

LIST OF APPENDICES

I. Geochemical Data

IA. Bondar-Clegg and Co., Ltd. laboratory reports

IB. Geochemical data with rock descriptions

II. Statistical Data

III. Trench Descriptions

IV. Certificates

## 1.0 INTRODUCTION

The claims were staked to cover coincident aeromagnetic and electromagnetic anomalies noted in this area by Gleeson-Rampton Explorations (1985). A subsequent till geochemical survey identified several anomalous gold areas in the southern half of the claim group that warranted further attention. This document reports on the follow-up bedrock geology and geochemistry of the claims with a view to determining the nature and extent of gold mineralization, and attempts to explain the till geochemistry and geophysical anomalies outlined by previous studies.

## 2.0 LOCATION AND ACCESS

The Indian River claims are located in central Darling Township, Eastern Ontario. They lie three kilometers north of highway 511 about 40 km northwest of Perth and 18 km southeast of Kalabogie (NTS map 31F/02). They are accessible from highway 511 by a gravel service road along a transmission line corridor which crosses the southern edge of the claims; or from Tatlock by Darling Concession Road 6 which joins the transmission line road near the centre of the southern edge of the claims. Numerous logging roads and trails cross the claims from these roads.

## 3.0 DESCRIPTION OF CLAIMS

The property consists of 34 contiguous claims. Their numbers and dates of staking and registration are given in Table 1. The claims lie within Concessions V, VI, and VII Lots 14, 15, 16, and 17 of Darling Township. They are presently held by Kinbauri Gold Corp., Suite 201, 16 Credit Union Way, Kanata, Ontario, K2K 2B5. Most of the work reported herein was conducted on the southern half of the claim group consisting of claims 838670-838673, 838679-838681, 1067343-1067344, 1067351-1067355. Reconnaissance work was performed on the northern claims.

Table 1: Staking and recording dates of the Indian River Claims.

NUMBER	DATE OF STAKING	DATE OF REGISTRATION
838670	January 22, 1986	February 17, 1986
838671	January 22, 1986	February 17, 1986
838672	January 22, 1986	February 17, 1986
838673	January 22, 1986	February 17, 1986
838679	January 30, 1986	February 17, 1986
838680	January 30, 1986	February 17, 1986
838681	January 30, 1986	February 17, 1986
921209	July 1, 1986	August 6, 1986
921210	July 1, 1986	August 6, 1986
921211	July 2, 1986	August 6, 1986
921212	July 2, 1986	August 6, 1986
921215	July 3, 1986	August 6, 1986
921216	July 3, 1986	August 6, 1986
921217	July 3, 1986	August 6, 1986
921218	July 4, 1986	August 6, 1986
921221	July 8, 1986	August 6, 1986
921222	July 8, 1988	August 6, 1986
921223	July 10, 1986	August 6, 1986
921224	July 10, 1986	August 6, 1986
921241	October 16, 1986	November 3, 1986
921242	October 16, 1986	November 3, 1986
921243	October 16, 1986	November 3, 1986
921244	October 20, 1986	November 3, 1986
921245	October 20, 1986	November 3, 1986
921246	October 20, 1986	November 3, 1986
921247	October 20, 1986	November 3, 1986
921248	October 20, 1986	November 3, 1986
1067343	August 23, 1988	September 6, 1988
1067344	August 23, 1988	September 6, 1988
1067351	September 1, 1988	September 6, 1988
1067352	September 1, 1988	September 6, 1988
1067353	September 1, 1988	September 6, 1988
1067354	September 1, 1988	September 6, 1988
1067355	September 1, 1988	September 6, 1988

#### 4.0 TOPOGRAPHY AND VEGETATION

The topography of the property is rolling with a local relief of 50 - 100 feet (15 - 30 m). Slopes are steep and uplands are relatively flat. The southern and southwestern margins of the property are marked by more hummocky topography with a local relief of 150 - 200 feet (45 - 60 m). The lowest point on the claims (660 feet, 200 m) is on the Indian River at the southern boundary of the property and the highest point (850 feet, 260 m) is nearby on the west boundary of the property to the south and west of the Indian River.

Drainage within the property is highly deranged by the activity of beavers; swamps and beaver ponds are abundant. Valleys and gullies are generally oriented between east-northeast and east-southeast parallel to the major tectonic features. Other lineaments are oriented northeast parallel to lithologies. Creeks flow in all directions from the property either into Raycroft Creek or Indian River. Raycroft Creek flows northward into Darling Long Lake and hence via Long Lake Creek to White Lake and thence into the Madawaska and Ottawa Rivers. Indian River crosses the southwest corner of the property and flows south and east into the Mississippi River and thence into the Ottawa River.

The property is mainly covered by hardwood forest dominated by maple, birch and blue beech. Isolated stands of pine are present. Spruce and balsam fir are the dominant species on imperfectly drained areas within valleys with cedar being predominant in bogs. Currently mature hardwood trees are being selectively cut for lumber and firewood. Swampy areas along Indian River and other major valleys are devoid of trees and are covered by sedges, grasses and reeds; this environment is probably the result of repeated damming by beavers.

#### 5.0 PREVIOUS WORK

Regional bedrock mapping by Peach (1958) shows most of the area to be underlain by amphibolite group rocks (hornblende-plagioclase schist and biotite schist, biotite-hornblende schist including some paragneiss); these rocks he interprets as being of volcanic origin. The southwest and northeast corners of the property are shown to be underlain by medium to coarse-grained diorite and gabbro. Isolated outcrops of white and cream coloured crystalline limestone and dolomite, mostly with interbeds of amphibolite and paragneiss are indicated in two places within the amphibolite group rocks.

Later mapping by Gleeson-Rampton Explorations (1985) and Thomas (1987) in the area to the east and north, has shown that a large part of Peach's amphibolite (volcanic) unit is a mylonite derived from gabbro and other adjacent rocks. This has

been confirmed by Easton (1987) for the area to the west along the Robertson Lake Shear Zone. Within the Indian River Claim Group, Easton generally follows Peach's mapping. He does however separate out large areas of siliceous clastic metasedimentary rocks including metasiltstone, felsic metatuff, metarenite, metamudstone, and sulphide facies ironstone.

The aeromagnetic map (Geological Survey of Canada, 1952) shows several magnetic highs within the Indian River Claim Group. Detailed airborne geophysics (Gleeson-Rampton Explorations, 1985) confirmed these anomalies and showed coincidental aeromagnetic and electromagnetic anomalies in this area. A ground magnetic and VLF-EM survey was completed over the northern half of the property (Keith, 1988). It defined several northwest-southeast oriented magnetic anomalies in the western, central, and eastern parts of the area and coincident VLF-EM anomalies.

The Quaternary geology of the area has been described by Fulton et al. (1986). The area was glaciated by ice flowing toward the south-southwest during the late Wisconsin. As the ice thinned the topography had an increasing influence on the ice flow which diverted to the southeast. Detailed mapping by Rampton (1987) shows the area as mainly covered by a till veneer and blanket with areas of thicker drift in the east central part of the area. Organic deposits of variable thickness underlie most low areas. Minor areas of glaciofluvial and lacustrine deposits were also noted.

A geochemical till sampling program conducted over the southern half of the property (Rampton, 1987) identified several geochemical anomalies in the -250 mesh fraction of the till. These anomalies are concentrated in the western, northern and eastern parts of the claims and are generally associated with the metasediments mapped by Easton (1987).

## 6.0 WORK COMPLETED

Field work commenced on September 9, 1988 in the northern half of the claim group with reconnaissance mapping in areas previously identified as being of interest by geophysical surveys and by prospecting.

Most of the field work was concentrated in the southern half of the property where the till sampling program had identified several gold in -250 mesh till anomalies. Where the cut lines had been destroyed by logging operations, the grid was re-established. The geology of the area was mapped by traversing the grid lines. Detailed mapping was carried out in the vicinity of the gold anomalies. At sites where the mapping indicated thin drift and interesting geology, a trench was excavated using a rubber-tired backhoe. Field work was completed on November 25,

1988.

Rock samples collected during the program were submitted to Bondar-Clegg and Company Ltd, 5420 Canotek Road, Ottawa, Ontario, K1J 8X5, for analysis for Au+33 elements by direct irradiation/instrumental neutron activation and for base metals (Cu, Pb, Zn, Ag) by atomic absorption. Selected samples were analyzed for Au only by fire assay/DC plasma.

The names and addresses of field personnel and the work they performed as follows:

1. Roger D. Thomas, MSc., P.Eng., FGAC., R. R. No. 2, Carp, Ontario, KOA 1L0; bedrock mapping, trenching.
2. Serge Paradis, MA., FGAC., 1390 Laurin Crescent, Orleans, Ontario, K1E 3A6; line reestablishment, mapping, trenching.
3. C. F. Gleeson, PhD., P.Eng., R. R. No. 1, Lakeshore Drive, Iroquois, Ontario, KOE 1K0; reconnaissance and detailed mapping, prospecting (northern area).
4. V. N. Rampton, PhD., P.Eng., R. R. No. 1, Carp, Ontario, KOA 1L0; reconnaissance and detailed mapping, prospecting (northern area).

## 7.0 BEDROCK GEOLOGY

### 7.1. General

Rocks on the property include a variety of clastic metasediments including ironstones, graphitic slates, greywackes, arenites, and argillites; chemical metasediments mainly dolomites; volcanic rocks including mafic flows and pyroclastic units; and mafic intrusives of the Lavant Gabbro Complex. Where the rocks have undergone intensive shearing, the mylonitized equivalents of these rocks are present. For continuity, the legend used in other parts of Darling and Lavant Townships (Gleeson-Rampton Explorations, 1985; Thomas 1987) was modified and used for the Indian River Claim Group.

The following is a table of lithologies; their distribution is shown on map 1:

UNIT	LITHOLOGY
2	Metasediments, clastic
3	Carbonates



- 5 Lavant Gabbro Complex
- 7 Mylonites
- 11 Iron-formation and related volcanics and metasediments
- 12 Volcanics

## 7.2. Lithologies

### 7.2.1. Metasediments (unit 2)

The metasedimentary rocks occur in several bands associated with the iron-formations which together form an east-west band 200 to 500 m wide across the southern claims. A second band extends along the east side of the Indian River into the northern half of the claim group. The metasediments can be subdivided into three lithologic groups: quartz-biotite schists, graphitic slates, and argillites.

#### 7.2.1.1. Quartz-biotite schist (unit 2c)

The schists are fine to medium grained and well bedded in 3 - 5 cm beds. White to light grey, weathering pinkish grey quartz-biotite schists with brown or red garnet rich members are locally present particularly in the western part of the area. Alteration is variable but includes chloritization, carbonatization, silicification and sericitization. Trace - 2%, fine grained, disseminated pyrite is locally present.

#### 7.2.1.2. Graphitic slates

Black, very fine grained, evenly laminated in 2 - 5 mm laminae, these rocks occur throughout the sequence but are most common in the northwest part of the southern half of the claim group. They weather black to rusty black and are commonly interbedded with other sedimentary rocks. Alteration includes silicification as fine quartz stringers and fracture coatings and pyritization as fine pyrite on fractures.

#### 7.2.1.3. Argillites (unit 2g)

Black, very fine grained, evenly laminated (2 - 20 mm thick), argillites and shales are commonly interbedded with other sediments. They weather dark grey to black, in places brown to reddish brown. Silicification is the common alteration although sericitization, carbonatization and chloritization were observed; biotitization is rare. Pyritization is common on fractures.

## 7.2.2. Carbonates (unit 3)

Carbonate rocks occur in the western part of the area associated with the metasediments. Generally they outcrop poorly and therefor may underlie other areas where outcrops are not prominent. Two types of carbonate sediments were identified: dolomite and ferroan dolomite; the latter was not of sufficient areal extent to form mappable units.

### 7.2.2.1. Dolomite (unit 3a)

Medium to dark grey, fine to cryptocrystalline, massive to well banded, weathering grey to brownish grey, this dolomite underlies most of the area along the western side of the Indian River, including most of the swamp lands, and in the area between L0 and L5W to the north of the baseline. A band of dolomite also traverses the northern half of the claims at approximately 50+00W; this latter unit could be an extension of the band along Indian River to the south. Silicification and rare chloritization were noted in some outcrops; traces of pyrite are present in places.

### 7.2.2.2. Ferroan Dolomite (unit 3ax)

Medium to dark grey to bluish grey, commonly interbanded with cream dolomite, the ferroan dolomite is characterized by a distinctive buff weathering. It is generally fine to medium grained. This lithology is restricted in occurrence to a position between grey dolomite and gabbro; as such it is probably derived by the alteration of grey dolomite (unit 3a) by the addition of Fe from the gabbro. A soft white dolomite was also noted in trench C188-TR10 and in one outcrop at L10E 1+77S; this is a very soft rock and is probably also formed from grey dolomite as a product of shearing and mylonitization. Alteration includes silicification and iron-carbonatization. Trace - 1% pyrite were noted in some outcrops.

## 7.2.3. Granitic intrusives (unit 4)

One outcrop of granite was mapped at L4W 0+75N. The granite is light pink, equigranular, and massive. Because this occurrence is limited to one outcrop, it may be a large boulder. Granite is known to occur in the extreme northeastern part of the northern claims (Gleeson-Rampton Explorations, 1985).

## 7.2.4. Lavant Gabbro Complex (unit 5)

Gabbro has been mapped in the western, southwestern and northeastern parts of the property. Most of the lithologies mapped as this unit on the property are dark grey to green to black, fine to medium grained, rarely coarse grained

gabbro. One outcrop of dioritic composition was mapped in the extreme southwestern corner of the area. The gabbro is massive to foliated to sheared as it grades into the mylonite described below. Commonly it is chloritized; carbonatization and silicification are locally present. Fine grained pyrite, pyrrhotite and magnetite are commonly disseminated throughout the rock.

#### 7.2.5. Mafic Mylonite (unit 7a)

The mafic mylonite is dark green, fine grained, well banded to well foliated, weathering dark grey to rusty grey. It commonly contains inclusions of gabbro, iron-formation and dolomite. The common alteration is chloritization, although carbonatization and silicification were also noted. 1 - 2% pyrite may be present usually concentrated on fractures.

#### 7.2.6. Iron-formations (unit 11)

The iron-formation unit comprises predominantly sulphide facies iron-formation beds with interbeds of oxide-facies iron-formation, pyroclastic volcanics, and metasediments.

##### 7.2.6.1. Iron-formation (unit 11A)

The iron-formation beds are black, very fine grained, and finely laminated. Individual beds contain up to 60% sulphides, mainly pyrite, but the abundance of sulphides can vary appreciably between adjacent beds. Some hematite (oxide-facies) beds occur within the sequence. Silicification is prominent in some areas; chloritization, biotitization, sericitization, and iron-carbonatization were also noted in certain places. It should be noted that these rocks can either be very hard, resistant to erosion and form good outcrops or be very soft, and occur adjacent to and presumably beneath swamps and valleys.

##### 7.2.6.2. Pyroclastics (unit 11b)

The pyroclastic beds that occur within the iron-formation sequence are light to medium grey, weathering brownish grey to light grey to white, fine grained to aphanitic, felsic tuffs. They are massive to well banded with 3 - 15 mm beds. In places the rock contains up to 20% elongated lapilli up to 1 - 2 mm in diameter. Commonly silicified and slightly sericitized, the tuffaceous beds contain 1 - 5% fine grained, disseminated pyrite.

##### 7.2.6.3. Metasediments (unit 11c)

The metasediments are predominantly siliceous greywackes, black shales, and argillites similar to those

described above. They occur in well banded units from 1 cm to several meters thick. Generally they contain no pyrite or other sulphide mineralization.

#### 7.2.7. Volcanic Rocks (unit 12)

Volcanic flows underlie much of the central part of northern half of the claim group (Easton, 1988) and in limited areas throughout the southern claims. They are dark green, equigranular, very fine grained, massive, mafic volcanic flows composed of 40% plagioclase, 60% hornblende with traces of fine disseminated pyrite, pyrrhotite and magnetite. Most of the hornblende has been chloritized.

#### 7.3. Structure

The metasedimentary rocks and iron-formations form an east-west trending belt across the central portion of the southern half of the claim group. Primary bedding (or banding) is oriented at Az045°T and dip southeasterly. An abrupt change in the orientation of this bedding along a line from L5W 5+00N to L8W 0+25N from northeasterly to northerly is interpreted as occurring at a fault. To the west of the fault the metasediments maintain this northerly trend into the northern half of the claim group; on a regional scale Easton (1988) has shown that these latter rocks form an overturned, northwesterly plunging anticline.

The gabbroic and mylonitic rocks are in fault or shear contact with the metasediments. Where the contact has been exposed (eg. trench CI88-TR10), a 2-5 m wide shear zone with a 5-10 m alteration (silicification and carbonatization) halo has been observed.

Apart from small conformable lenses of volcanic rocks within the metasedimentary sequence, the relationship of the volcanics to the metasediments is unknown. They are believed to be conformable. The dolomites are believed to be in fault contact with the adjacent rocks.

The Geordies Lake Splay, a major shear zone that has been previously mapped from the Robertson Lake Shear Zone to the Peterwhite claim group to the southwest (Thomas, 1987; Gleeson-Rampton Exploration, 1985), appears to terminate on a north-south fault along the Indian River. This fault also marks the end of the Geordies Lake Splay on the Peterwhite claim group to the south. The offset along this fault has not been determined as the geology on either side of the fault, within the area studied, is quite different except for some narrow zones of mylonite. There are several large areas of dolomite along this fault zone which may indicate that it is a shear zone and has incorporated

dolomites from the south and moved them northward. This shear zone would cross the southern part of the Indian River claims in a 200 - 300 m wide zone along the Indian River and extend northward into the northern claims possibly marking the contact of the gabbro and the iron-formations.

Several other faults have been interpreted within the area, based on the presence of unconformable geology, shear zones and mylonites. Easton (1988) shows a north-easterly trending fault following a series of swamps from the bend in the Indian River at L11W 8+00N to approximately L12W 5+00S. The present study found little evidence for this fault except for the lineation formed by these swamps.

#### 7.4. Alteration

Silicification is the prominent alteration throughout the area. It occurs as pervasive alteration of the host rock, to fracture fillings and coatings, to large quartz veins up to 3 m wide and several meters in length. It occurs in all lithologies, but is most prominent in the metasedimentary and volcanic sequences. Several of these zones warrant further prospecting and investigation because of their association with anomalous gold in till as previously determined (Rampton, 1987).

Three large quartz veins were found and trenched during this program. The vein at L11E 9+25S (trench CI88-TR13) is 3 m wide and oriented at Az048°T/32°S; the vein is barren (1 ppb Au) but the adjacent iron-formation contained up to 16 ppb Au and 0.3 ppm Ag. A 0.6 m wide quartz vein at L12+50S 27+00W on the northern claims was trenched (trench CI88-TR19) and found to be oriented at Az017°T/90°; it contained up to 304 ppb Au, 3960 ppm Cu, and 1.6 ppm Ag. The adjacent shear zones were also enriched in these metals. A third quartz vein at L11S 40+00W (trench CI88-TR21) was found to contain up to 0.5 ppm Ag but only traces of gold.

Extensive zones of silicification were identified at L7E 6+00S to L13E 3+00S; L11W 2+00N to L10W 0+50S; L9W 6+00N to L6W 8+00N; and L7W 5+00N to L4W 2+00N. In many cases prospecting revealed anomalous metal contents of rocks associated with these zones. Also anomalous gold contents are present in the tills down-ice from these areas (Rampton, 1987).

Chloritization of the mafic minerals of gabbros and mylonites is common. This alteration is presumed to be a characteristic of the shearing to which these rocks have been subjected as previously discussed (Gleeson-Rampton Explorations, 1985; Thomas, 1987). The alteration is most extensive in the mylonites and is less prominent in the gabbros. Isolated areas of chloritization were also identified within the metasediments and iron-formations.

Carbonatization is most extensive along the Indian River where it may be associated with gold mineralization as indicated by the anomalous gold content of the associated till (Rampton, 1987). It commonly is manifest by fracture fillings by calcite or iron-carbonate. Rarely the carbonatization occurs pervasively or as quartz-carbonate veins. Most commonly occurring in mylonites, gabbros and dolomites, rare areas of carbonatization of other lithologies were noted.

Sericitization is rare being developed only in metasedimentary rocks associated with north-south faults in the western part of the southern claims. Its relationship to gold mineralization is undetermined but the associated till contains anomalous gold (Rampton, 1987).

#### 7.5. Economic Geology

Sixty-three selected rock samples from outcrops and boulders were analyzed by neutron activation for Au+33 elements (Na, Sc, Cr, Fe, Co, Ni, Zn, As, Se, Br, Rb, Zr, Mo, Ag, Cd, Sn, Sb, Te, Cs, Ba, La, Ce, Sm, Eu, Tb, Yb, Lu, Hf, Ta, W, Ir, Th, and U) and by atomic absorption for Cu, Pb, Zn, and Ag (the latter two elements in order to detect lower concentrations). In order to reduce analytical costs and to shorten the reporting time, the final 78 samples were analyzed for Au by fire assay/DC plasma and for Cu, Zn, and Ag by atomic absorption; 2 samples were analyzed for Au, Cu, Pb, Zn, Ag and 3 samples were analyzed for Au only, all by the latter techniques. The results are given in Appendix I.

Gold contents of the 143 rocks analyzed ranged from a background of <1 ppb (39 samples, 27.3%) to 304 ppb. The graphic statistics calculated according to the partitioning technique described by Sinclair (1976) are:

Mean	3 ppb
Mean + 1 standard deviation	8 ppb
Mean + 2 standard deviations	10 ppb
Mean + 3 standard deviations	200 ppb

If gold contents greater than mean + 2 standard deviations are considered anomalous, 30 samples are anomalous. Defining anomalous gold contents at greater than 3 Clarkes (>12 ppb; Mason and Moore 1982), reduces the number of anomalous samples to 25. Note that 8 samples contain greater than 10 Clarkes (40 ppb) Au and 2 samples contain greater than 50 Clarkes (200 ppb, mean + 3 standard deviations) Au.

Using the 63 samples for which the multielement data is complete, various statistics were generated using the statistical package available through Bondar-Clegg and Company Limited, Ottawa. The results of this statistical analysis are in Appendix

II. Various correlations are apparent in the correlation matrix, but of particular interest is the highly significant correlation between gold, antimony, tungsten, copper and silver. It should be noted that although there is no regional correlation between these elements and molybdenum, samples with anomalous gold contents also contain anomalous molybdenum. There are also good correlations among the rare earth elements, uranium, thorium, and barium. The univariate statistics for these samples indicate that the average sample is enriched in Se, Mo, Sb, Au, and Cu compared to the Clarke value, is about average with respect to Fe, Hf, W, Ag and Pb, and is deficient to highly deficient of most other elements. This result is partially the effect of the selective nature of the sampling.

Inspection of the analytical data including all samples (Appendix IB) shows that anomalous gold may be present in all rocks except gabbro (unit 5), tuffaceous beds within the iron-formation package (unit 11B), quartz-biotite schists (unit 2C), argillites (unit 2D), and felsic mylonites (unit 7B). Note that in many of these lithologies only one or two samples were analyzed. The majority of anomalous gold samples were collected from iron-formations (11A) and quartz veins (QV).

The highest gold value (CI88-TR19-F, 304 ppb) was obtained from trench CI88-TR19 located in the northern claims. This trench exposed a 60 cm wide quartz vein hosted in mafic volcanics. The wall rock on both sides was sheared and highly sericitized and silicified for a distance of 20 - 30 cm from the vein. This sample was of milky quartz with visible pyrite and chalcopyrite. A previously collected sample of a boulder derived from this vein contained anomalous Au (85 ppb), Cu (3960 ppm), Ag (1.6 ppm), As (16 ppm), Sb (18.7), and W (11 ppm). The wall rocks are anomalous in Cu (204 ppm), and Ag (0.6 ppm). A second shear zone oriented at right angles to the quartz vein was found to contain anomalous Au (13 ppb).

The second highest gold value (87-IR-2, 208 ppb) came from silicified iron-formation. A nearby quartz vein formed in the same sequence yielded the third highest gold value (87-IR-1, 108 ppb). Both of these samples are anomalous in Ag (3, 1.3 ppm respectively) and the former is also anomalous in Pb (70 ppb). This area, located in the northern claims, was later prospected and trenched in two places. Only one other anomalous gold sample was obtained (CI88-TR20-D, 99 ppb), this ranking as the fourth highest gold value. Other samples from this area did contain sporadically anomalous As (up to 33 ppm) and Sb (up to 2.4 ppm).

The fifth highest gold value (87 ppb) came from a silicified ferroan dolomite unit exposed in trench CI88-TR11 to the west of the Indian River. This unit is presumably formed at the shear contact of the gabbro (or mafic mylonite) to the west and dolomite to the east. This sample also contains anomalous Cu

(198 ppm). A second sample of the same ferroan dolomite but containing an extensive fracture system filled with Fe-carbonate contained anomalous gold (16 ppb). Other samples analyzed from this immediate area were of dolomite and contain <1 ppb Au. Another trench (CI88-TR10) excavated 100 m to the south yielded an anomalous sample (31 ppb Au) of mylonitized gabbro. The adjacent ferroan dolomite contain only background gold.

Trench CI88-TR17 yielded the 7th and 8th highest gold values (45, 42 ppb). Located in the eastern part of the property, this area had been previously identified as having good potential by the high gold in the -250 mesh fraction of the till, and from prospecting (CI88-T0069, 20 ppb Au). This latter sample was also anomalous in Cu (213 ppm), Zn (298 ppm), Ag (0.3 ppm), Sb (1.3 ppm), Mo (9 ppm), and Fe (23.7%). Only one of the trench samples (C) was anomalous in Ag (1.6 ppm). Two samples taken from an outcrop on an island in a beaver pond 300 m to the west along strike contained anomalous Au (14, 13 ppb), As (34, 5.7 ppm), Mo (0.5, 18 ppm), and Sb (3.2, 1.2 ppm). It should be noted that the high till geochemical anomaly lies immediately south of this pond.

A trench (CI88-TR13) excavated across a 3 m wide quartz vein, 350 m to the south of CI88-TR17 yielded background gold values. Two samples from the adjacent iron-formation contained only slightly anomalous gold values (13, 16 ppb Au). A second sequence of iron-formations 300 m to the north of CI88-TR17 were sampled and trenched. Samples from this area contained 16 ppb Au (CI88-TR15-C) and 28 ppb Au (CI88-T0068). This latter sample was also anomalous in As (31 ppm), Mo (14 ppm), Sb (1.6 ppm), and Ag (0.4 ppm). A sample (87RME158), taken by Easton (1988), contained 155 ppb Au, 234 ppm Cu and 15 ppm Pd. This sample is to the west and probably along strike from this site.

Several anomalous gold samples were taken along the Indian River to the north of the baseline. These include CI88-T0011 (31 ppb Au), CI88-T0013 (18 ppb Au), CI88-T0008 (16 ppb Au), and CI88-T0049 (14 ppb Au); all of these being from the same iron-formation unit. All are also anomalous in As (16, 8.8, 11, 33 ppm), Mo (18, 13, 4, 27 ppm), and Sb (6.2, 1.3, 0.8, 3 ppm). CI88-T0011 is also anomalous in Ag (0.9) and Pb (44 ppm). Trench CI88-TR3, slightly north of this area, contained the only dolomitic sample which was anomalous in gold (sample B, 28 ppb).

Two anomalous samples were obtained along L6W to the north of the baseline. They are CI88-T0024 (35 ppb Au) and CI88-T0023(A). These samples are also anomalous in As (114, 5.7 ppm), Mo (22, 18 ppm), and Sb (2.8, 1.2 ppm). Both these samples are of argillite.

## 8.0 DISCUSSION



The till geochemical survey (Rampton, 1987) defined several areas of potential gold mineralization. The present program attempted to find the source of this gold by mapping, prospecting and trenching. Although several locales of gold enrichment were identified up ice from the till anomalies, the degree of gold enrichment found does not appear sufficient to explain the till anomalies. The present survey did however identify a possible host lithology and style of mineralization present in each of these areas.

The west side of the Indian River is marked by till anomalies up to 86 ppb Au. These anomalies are underlain by dolomite, which, where exposed and sampled, was found to be barren. The gold in the rocks of the area was found in two settings: in the shear contact between the mylonitized gabbro and the dolomites, and in the iron-formations in contact with the dolomites on the east. This latter contact is probably a fault or shear zone. In the former setting anomalous gold was found in the gabbro (up to 31 ppb) and in the ferroan dolomite (87 ppb) which is formed in the shear zone. The adjacent dolomite is relatively barren. In the latter setting, anomalous gold was found in the iron-formations (up to 18 ppb) and in silicified dolomite (28 ppb). The contact (shear or fault) was not exposed at this locale and its potential for gold mineralization was not assessed, although it is believed to be high.

Iron-formations with anomalous gold contents were identified in the eastern part of the claims in the vicinity of till anomalies. However the highest till anomalies are not directly down ice from the anomalous outcrops. Therefore there must be a richer source of gold in the area that has yet to be found. It is probable that this source will have some relationship to the iron-formations, but will involve some process of enrichment by tectonics or vein formation. Unfortunately, the highest till anomalies are all down ice from swamps and beaver dams, a fact which might support the tectonic enrichment hypothesis.

Anomalous gold mineralization was not found in the area of the till anomalies at L0 2+00N-4+00N, L6W 3+00N, L7W 5+00N, or L9W 7+00-8+00N.

Reconnaissance prospecting and trenching did reveal two further styles of gold mineralization in the northern claims. These are quartz veins probably associated with shear zones developed in mafic volcanic rocks, and silica injection zones in iron-formations. The extent of these systems is not known and further work will be required in order to evaluate them.

## 9.0 RECOMMENDATIONS

In the southern half of the claims, sufficient gold

mineralization that could explain the till anomalies has not been found. It is most probable that the mineralized zones lie under swamps and rivers. It is therefor recommended that VLF and humus surveys be undertaken in order to identify suitable drill targets as follows:

1. Detailed humus and VLF (using Seattle and Cuttler) should be conducted over lines 8W to 13W north of the baseline. This should enable the structures present to be delimited and the locations of potential gold mineralization on these structures to be identified.
2. Detailed humus and VLF (using Seattle and Cuttler) should be conducted over lines 7E to 13E from 4+00S to the power line. Again this should delimit the structures and the associated areas of potential gold mineralization.
3. Humus sampling could be undertaken on lines 6W to 8W north of 1+00N in order to define the presence of significant gold mineralization.
4. In the eastern part of the area, the till geochemical survey can be interpreted two ways: the gold mineralization is related to the east-west stratigraphy, or as it exhibits some northwesterly trending features (eg. along L9E), it may be related to as yet unknown structures in this area. Reconnaissance mapping should be undertaken in the central part of the area (L0 to L5E) to explain the absence of till anomalies. The Quaternary geology map (Rampton, 1987), prepared during till sampling, shows this area to be mainly thick drift, which could explain the lack of geochemical anomalies in the till.

Little work has been completed on the northern half of the claim group. It is recommended that the area be scanned with till sampling on 100 m centres, followed up by humus sampling in the most auriferous zones. Basic geological mapping should also be completed. Because the presently known geology of the northern half of the claim group indicates that the most favorable geology lies between the two gabbro masses (20+00W to 60+00W), especially along the contact of the gabbro as defined by strong VLF-EM conductors, these surveys could be restricted to these areas.

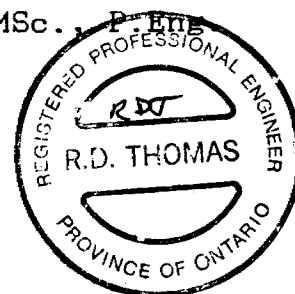
Respectfully submitted,

*Roger D Thomas*

December 30, 1988

Roger D. Thomas, MSc., P. Eng.

15



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APPENDIX I

GEOCHEMICAL DATA

IA. GEOCHEMICAL LABORATORY REPORTS

IB. GEOCHEMICAL DATA FILE (by sample number)

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REPORT: 800 52005.0 ( COMPLETE )		REFERENCE INFO:	
CLIENT: FURNACE MINE LABORATION PROJECT: NAME		SUBMITTED BY: S. B. THOMPSON DATE PREPARED: 11 OCT 80	
NUMBER	ELEMENT	NUMBER OF ANALYSES	UNITS
1	Na	20	0.92 PCT
2	Scandium	20	0.2 PPM
3	Cr	20	20 PPM
4	Fe	20	0.2 PCT
5	Co	20	5 PPM
6	Nickel	20	20 PPM
7	Zinc	20	100 PPM
8	As	20	0.5 PPM
9	Selenium	20	5 PPM
10	Bromine	20	0.5 PPM
11	Rubidium	20	5 PPM
12	Cesium	20	200 PPM
13	Strontium	20	1 PPM
14	Silver	20	2 PPM
15	Cadmium	20	5 PPM
16	Tin	20	200 PPM
17	Antimony	20	0.1 PPM
18	Tellurium	20	10 PPM
19	Barium	20	0.5 PPM
20	Lead	20	50 PPM
21	Lanthanum	20	2 PPM
22	Cerium	20	5 PPM
23	Samarium	20	0.05 PPM
24	Europium	20	4 PPM
25	Gadolinium	20	0.5 PPM
26	Terbium	20	2 PPM
27	Erbium	20	0.2 PPM
28	Yttrium	20	1 PPM
29	Zirconium	20	0.5 PPM
30	Niobium	20	1 PPM
31	Strontium	20	50 PPM
32	Gold	20	2 PPM
33	Thorium	20	0.2 PPM
34	Uranium	20	0.2 PPM
35	Protactinium	20	0.01 g
36	Copper	20	1 PPM
37	Silica	20	1 PPM

REPORT: 800 52005.0 ( COMPLETE )		REFERENCE INFO:	
CLIENT: FURNACE MINE LABORATION PROJECT: NAME		SUBMITTED BY: S. B. THOMPSON DATE PREPARED: 11 OCT 80	
NUMBER	ELEMENT	NUMBER OF ANALYSES	UNITS
38	Ag	20	9.1 PPM
39	Pb	20	2 PPM

SAMPLE TYPES	NUMBER	SIZE (MILLIMETERS)	NUMBER	SAMPLE PREPARATION NUMBER
ROCK	20	200	20	Ceramic Prep 200 20

REMARKS: ( REAR) LINES TIGHT.

ANALYST LAB: S. B. THOMPSON  
 C.F. GLENNON  
 S.B. THOMPSON

INVOICE TO: V. THOMPSON



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REPORT: 000-53679.0

PROJECT: N10 IR

CLIENT: MIDBAULT GOLD CORPORATION PROJECT: N10 IR	SUBSTRATE: B1, B2, 1-3-MS DATE PREPARED: 8-1-78												
<table border="1"> <thead> <tr> <th>ORDER</th> <th>ELEMENT</th> <th>NUMBER OF ANALYSES</th> <th>LOWER DETECTION LIMIT</th> <th>EXTRACTION</th> <th>METHOD</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>As, Cd, Pb</td> <td>3</td> <td>1 PPM</td> <td>MMA, PEGIA</td> <td>Fractionator/PC Plasma</td> </tr> </tbody> </table>	ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD	1	As, Cd, Pb	3	1 PPM	MMA, PEGIA	Fractionator/PC Plasma	
ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD								
1	As, Cd, Pb	3	1 PPM	MMA, PEGIA	Fractionator/PC Plasma								
<table border="1"> <thead> <tr> <th>SAMPLE TYPES</th> <th>NUMBER</th> <th>SIZE FRACTIONS</th> <th>NUMBER</th> <th>SAMPLE PREPARATIONS</th> <th>NUMBER</th> </tr> </thead> <tbody> <tr> <td>MCA</td> <td>3</td> <td>-20</td> <td>3</td> <td>Ceramic Press - 150</td> <td>3</td> </tr> </tbody> </table>	SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER	MCA	3	-20	3	Ceramic Press - 150	3	
SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER								
MCA	3	-20	3	Ceramic Press - 150	3								

REPORT COMPILED BY: V. HAMPTON  
C.F. BLEESBY  
V.D. TREANE

INDEX BY: V. HAMPTON

REPORT: 000-53679.0

PROJECT: N10 IR PAGE 1

SAMPLE NUMBER	ELEMENT	UNITS	PPM
1000-1115 40-50a-B	As	PPM	1.5
1000-1115 40-50a-C	As	PPM	1.5
1000-1115 40-50a-D	As	PPM	1.5

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REPORT: 017-1358

PROJECT: 01-RECCO PAGE 1

SAMPLE NUMBER	ELEMENT	UNITS	PPM	Co	Cr	Fe	Mn	Ni	Pb	Zn
07-01-1	As	PPM	1.2	1.7	27	100	100	100	100	100
07-01-2	As	PPM	1.7	1.7	27	100	100	100	100	100

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REPORT: 000-53680.0

PROJECT: N10 IR PAGE 1A

SAMPLE NUMBER	ELEMENT	UNITS	Pb	Cd	Cr	Fe	Co	Ni	In	As	Mo	Sr	Ba
C100-10030	As	PPM	0.37	1.5	<20	0.5	<5	<20	<100	20.0	<5	<1.0	<5
DUPLICATE	As	PPM	0.20	20.3	52	19.0	<5	<20	130	13.0	<5	<2.0	67
C100-10041	As	PPM	1.00	12.0	85	8.3	<5	<20	120	30.0	<5	<2.0	60
C100-10042	As	PPM	0.11	12.0	89	4.9	<5	<20	<100	33.0	<5	<2.0	58
C100-10049 B	As	PPM	0.00	27.1	95	4.2	21	38	<100	15.0	<5	<2.0	170
C100-10051 B	As	PPM	0.36	5.7	<20	2.7	12	21	<100	17.0	<5	<2.0	39
C100-10052	As	PPM	1.00	11.0	30	2.7	<5	<20	<100	17.0	<5	<2.0	52
C100-10053	As	PPM	3.00	7.1	<20	2.2	7	<20	<100	7.0	<5	<2.0	37
C100-10054 B	As	PPM	1.99	12.0	<20	1.7	11	11	<100	8.9	<5	<2.0	17
C100-10055 B	As	PPM	0.00	0.9	<20	0.3	<5	<20	<100	3.7	<5	<2.0	<5
DUPLICATE	As	PPM	1.90	24.3	24	5.5	8	<20	130	34.0	<5	<2.0	110
C100-10058 B	As	PPM	0.15	18.0	32	5.3	8	16	<100	60.0	<5	<2.0	43
C100-10059	As	PPM	4.00	1.0	<20	1.0	<5	<20	<100	118.0	<5	<2.0	51
C100-10060 B	As	PPM	0.18	0.9	<20	1.5	7	<20	<100	0.2	<5	<2.0	5
C100-10061	As	PPM	1.40	11.0	25	9.2	<5	<20	<100	16.0	<5	<2.0	76
C100-10062	As	PPM	0.18	0.1	41	42.7	<5	25	<100	63.4	8	<2.0	17
C100-10063	As	PPM	1.70	50.0	72	14.0	44	25	290	14.0	<5	<2.0	22
C100-10064 B	As	PPM	1.30	15.0	43	4.9	6	<20	<100	0.6	<5	<2.0	55
DUPLICATE	As	PPM	1.90	26.0	150	7.7	20	35	250	4.3	<5	<2.0	33
C100-10065	As	PPM	0.13	0.6	80	2.0	<5	<20	<100	30.0	<5	<2.0	60
C100-10066	As	PPM	3.21	12.0	45	7.2	8	10	140	5.2	<5	<2.0	37
C100-10067	As	PPM	4.12	7.0	34	2.7	7	<20	<100	71.0	<5	<2.0	54
1000-1115 40-50a	As	PPM	0.23	2.5	<20	0.7	<5	<20	<100	41.0	<5	<2.0	<5
1000-1115 40-50a A	As	PPM	0.14	3.1	<20	1.0	1	<20	<100	13.0	<5	<2.0	<5
1000-1115 20-50a	As	PPM	0.32	46.0	84	10.0	31	<20	250	8.7	<5	<2.0	<5
1000-1115 20-50a	As	PPM	0.85	54.7	46	12.0	89	30	260	10.0	<5	<2.0	<10
1000-1115-500 27-50a	As	PPM	0.27	16.0	54	3.0	20	21	<100	14.0	<5	<2.0	72
1000-1115-20-50a	As	PPM	0.20	3.3	<20	1.4	7	<20	<100	10.0	<5	<2.0	<5

REPORT: 000-53680.0

PROJECT: N10 IR PAGE 2B

SAMPLE NUMBER	ELEMENT	UNITS	Pb	As	Mo	Co	Sr	Ba	To	Co	Pb	As	Co
C100-10030	As	PPM	<200	1	<2	<5	<100	1.1	<10	<0.5	<50	<2	<5
DUPLICATE	As	PPM	<200	<1	<2	<5	<100	1.2	<10	<0.5	500	23	44
C100-10041	As	PPM	<200	3	<2	<5	<100	1.5	<10	<0.5	750	12	27
C100-10049	As	PPM	340	27	<2	<5	<100	3.0	<10	0.5	170	11	27
C100-10049 B	As	PPM	500	<1	<2	<5	<100	1.3	<10	2.3	1500	12	75
C100-10051 B	As	PPM	<200	<1	<2	<5	<100	2.6	<10	<0.5	250	3	6
C100-10052	As	PPM	<200	8	<2	<5	<100	1.6	<10	0.7	320	10	19
C100-10053	As	PPM	<200	5	<2	<5	<100	0.9	<10	<0.5	213	11	20
C100-10054 A	As	PPM	<200	12	<2	<5	<100	1.2	<10	<0.5	270	22	36
C100-10055 B	As	PPM	<200	<1	<2	<5	<100	0.4	<10	<0.5	<50	2	<5
DUPLICATE	As	PPM	<200	<1	<2	<5	<100	3.2	<10	1.6	1000	35	75
C100-10058 B	As	PPM	<200	9	<2	<5	<100	1.1	<10	0.9	890	17	26
C100-10059	As	PPM	<200	4	<2	<5	<100	0.7	<10	<0.5	490	19	41
C100-10060 B	As	PPM	<200	<1	<2	<5	<100	0.5	<10	<0.5	35	<2	6
C100-10061	As	PPM	<200	20	<2	<5	<100	1.7	<10	0.7	540	11	10
C100-10062	As	PPM	<200	8	<2	<5	<100	0.3	<10	<0.5	720	8	15
C100-10063	As	PPM	<200	<1	<2	<5	<100	1.1	<10	<0.5	790	11	25
C100-10064 B	As	PPM	<200	15	<2	<5	<100	1.0	<10	<0.5	200	13	20
DUPLICATE	As	PPM	<200	<1	<2	<5	<100	0.8	<10	0.0	37	6	14
C100-10065	As	PPM	<200	6	<2	<5	<100	1.0	<10	<0.5	610	6	14
C100-10066	As	PPM	<200	22	<2	<5	<100	1.1	<10	<0.5	200	21	34
C100-10067	As	PPM	<200	2	<2	<5	<100	7.0	<10	<0.5	130	25	52
1000-1115 41-50a	As	PPM	<200	1	<2	<5	<100	3.5	<10	<0.5	<50	<2	<5
1000-1115 40-50a A	As	PPM	<200	<1	<2	<5	<100	2.4	<10	<0.5	<50	<2	<5
1000-1115 20-50a	As	PPM	<200	<1	<2	<5	<100	7.7	<10	<0.5	87	16	22
1000-1115 20-50a	As	PPM	440	1	<2	<5	<100	0.7	<10	<0.5	<50	6	15
1000-1115-500 27-50a	As	PPM	<200	<1	<2	<5	<100	16.7	<10	<0.5	360	11	21
1000-1115-20-50a	As	PPM	<200	<1	<2	<5	<100	2.4	<10	<0.5	<50	<2	<5



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REPORT: 000-53000.0 PROJECT: VIM 1A PAGE 1C

SAMPLE NUMBER	ELEMENT UNITS	As	Fe	Th	U	Pa	Bi	Pb	Ag	Cd	Hg	Mo	Co
C100-10030		0.26	<1	<0.5	<2	<0.2	<1	<0.5	<1	<50	2	<0.2	
DUPLICATE													
C100-10041		5.30	<1	2.0	7	0.7	0	0.6	<1	<50	11	4.7	
C100-10047		2.00	<1	0.6	3	0.3	4	0.6	<1	<50	7	1.9	
C100-10049		2.00	<1	0.6	2	<0.2	2	<0.5	<1	<50	14	3.6	
C100-10049 B		2.00	3	1.0	6	0.8	10	0.6	<1	<50	<2	7.5	
C100-10051 B		0.07	<1	<0.5	<2	<0.2	<1	<0.5	3	<50	4	0.7	
C100-10052		2.20	<1	0.6	3	<0.2	4	0.6	2	<50	3	3.5	
C100-10053		2.50	<1	<0.5	3	0.3	3	0.5	<1	<50	5	2.6	
C100-10054 B		4.20	<1	1.1	4	<0.2	7	0.7	2	<50	<2	6.0	
C100-10055 B		0.42	<1	<0.5	<2	<0.2	<1	<0.5	<1	<50	<2	0.2	
DUPLICATE													
C100-10050 A		0.70	2	1.0	5	0.4	6	0.8	3	<50	14	5.2	
C100-10050 B		3.50	3	0.8	1	<0.2	5	<0.5	<1	<50	13	3.5	
C100-10059		2.00	2	<0.5	<2	<0.2	4	1.2	<1	<50	<2	5.0	
C100-10060 B		0.73	<1	<0.5	<2	<0.2	<1	<0.5	<1	<50	4	0.2	
C100-10061		1.40	<1	0.5	2	<0.2	2	<0.5	2	<50	3	3.4	
C100-10062		1.00	<1	<0.5	2	<0.2	<1	<0.5	<1	<50	11	2.0	
C100-10063		4.50	4	1.0	4	0.6	3	0.6	<1	<50	<2	6.5	
C100-10064 B		1.70	<1	0.7	1	<0.2	4	0.6	2	<50	<2	4.3	
DUPLICATE													
C100-10064 C		2.40	<1	<0.5	2	<0.2	2	<0.5	<1	<50	4	0.6	
C100-10065		1.30	<1	0.6	2	0.2	2	<0.5	3	<50	6	1.6	
C100-10066		2.00	2	0.8	2	<0.2	2	1.2	2	<50	<2	4.0	
C100-10067		1.40	<1	0.7	<2	<0.2	6	<0.5	1	<50	<2	1.5	
IR00-1105 41-000		0.55	<1	<0.5	<2	<0.2	<1	<0.5	<1	<50	3	0.4	
IR00-1115 40-500 A		0.34	<1	<0.5	<2	<0.2	<1	<0.5	2	<50	5	<0.2	
IR00-1125 20-000		1.30	2	1.1	4	0.3	4	0.5	2	<50	5	0.5	
IR00-1125 20-500		1.30	<1	1.0	4	0.6	5	<0.5	<1	<50	11	0.5	
IR00-1125-505 27-000		2.30	<1	0.7	<2	0.3	2	<0.5	11	<50	85	0.4	
IR00-1145-26-000		0.41	<1	<0.5	<2	<0.2	<1	<0.5	<1	<50	5	<0.2	

REPORT: 000-53000.0 PROJECT: VIM 1B PAGE 1D

SAMPLE NUMBER	ELEMENT UNITS	As	Fe	Th	U	Pa	Bi	Pb	Ag	Cd	Hg	Mo	Co
C100-10030		<0.2	11.02	7	32	<0.1	6						
DUPLICATE													
C100-10041		5.5	10.54	110	62	0.1	7						
C100-10047		1.8	10.12	25	60	<0.1	4						
C100-10049		3.5	11.63	30	36	<0.1	14						
C100-10049 B		3.2	9.65	39	19	<0.1	14						
C100-10051 B		0.4	11.52	30	23	<0.1	0						
C100-10052		5.3	10.54	23	23	<0.1	4						
C100-10053		1.0	11.96	49	32	<0.1	2						
C100-10054 A		4.7	11.51	102	39	<0.1	4						
C100-10055 B		<0.2	12.14	0	30	<0.1	2						
DUPLICATE													
C100-10050 A		2.0	10.50	30	61	<0.1	14						
C100-10050 B		5.1	10.97	30	32	<0.1	4						
C100-10059		3.1	11.71	34	34	<0.1	4						
C100-10060 B		<0.2	11.62	0	24	<0.1	2						
C100-10061		3.1	12.12	20	24	0.2	7						
C100-10062		1.0	12.63	64	20	<0.1	4						
C100-10063		0.2	12.50	30	60	<0.1	5						
C100-10064 B		4.1	10.70	19	27	<0.1	4						
DUPLICATE													
C100-10064 C		0.5	10.29	12	223	<0.1	6						
C100-10065		1.4	9.19	19	25	0.2	14						
C100-10066		4.3	10.15	24	42	<0.1	0						
C100-10067		1.5	11.50	19	43	<0.1	5						
IR00-1105 41-000		0.4	10.07	34	42	<0.1	5						
IR00-1115 40-500 A		<0.2	12.33	17	74	<0.1	2						
IR00-1125 20-000		0.6	11.01	5	77	<0.1	7						
IR00-1125 20-500		0.4	10.57	50	72	<0.1	3						
IR00-1125-505 27-000		0.4	10.60	2960	34	1.6	0						
IR00-1145-26-000		<0.2	11.65	190	19	<0.1	5						

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REPORT: 000-53200.0 PROJECT: VIM 1A PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	As	Fe	Cr	Pb	Co	Bi	Sn	Ag	Sr	Mo	Co
C100-10068		0.20	7.4	45	23.0	17	100	<100	31.0	9	<2.0	<0.5
DUPLICATE												
C100-10069		0.06	5.3	42	23.2	17	140	370	14.0	8	<2.0	32
C100-10071A		<0.02	0.4	<20	0.0	<5	<100	15.0	<5	<2.0	<5	<5
C100-10071B		0.00	10.0	25	3.4	0	<20	110	109.0	<5	<2.0	21
C100-10072		1.15	5.0	10	1.0	<5	<10	<100	15.0	<5	<2.0	25
C100-10073		0.06	11.0	30	6.0	<5	<10	33.0	<5	<2.0	<5	50
C100-10074		0.40	25.0	<20	4.5	10	<20	<100	5.0	<5	<2.0	<5

REPORT: 000-53200.0 PROJECT: VIM 1B PAGE 1B

SAMPLE NUMBER	ELEMENT UNITS	As	Fe	Ag	Cd	Sn	Sr	Pb	Co	Bi	Mo	Co
C100-10068		<100	14	<2	<5	<100	7.0	<10	<0.5	400	10	13
DUPLICATE												
C100-10069		<100	9	<2	<5	<100	1.3	<10	<0.5	270	12	23
C100-10071A		<100	<1	<2	<5	<100	1.0	<10	<0.5	<50	<2	<5
C100-10071B		<100	<1	<2	<5	<100	1.0	<10	0.7	200	3	9
C100-10072		<100	3	<2	<5	<100	0.5	<10	0.7	140	7	10
C100-10073		<100	10	<2	<5	<100	1.3	<10	1.1	<10	9	10
C100-10074		<100	<1	<2	<5	<100	0.7	<10	<0.5	<50	<2	<5



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REPORT: 000-53724.3 PROJECT: 410 10 PAGE 10

SAMPLE NUMBER	ELEMENT UNITS	U	VI	Co	Zn	Ag	Pb	Th
		PPM	PPM	PPM	PPM	PPM	PPM	PPM
C100-10070		3.00	<1	0.0	2	0.1	2	<0.5
DUPLICATE								
C100-10069		2.20	2	1.1	3	0.6	2	<0.5
C100-10071A		0.32	<1	<0.5	<2	<0.2	<1	<0.5
C100-10071B		1.50	<1	<0.5	<2	<0.2	<1	<0.5
C100-10072		2.20	<1	<0.5	4	0.6	1	<0.5
C100-10073		1.10	<1	<0.5	<2	0.3	2	<0.5
C100-10074		1.00	1	<0.5	2	0.3	2	<0.5

REPORT: 000-53724.3 PROJECT: 410 10 PAGE 10

SAMPLE NUMBER	ELEMENT UNITS	U	VI	Co	Zn	Ag	Pb	Th
		PPM	PPM	PPM	PPM	PPM	PPM	PPM
C100-10068		2.3	12.50	121	61	0.1	14	
DUPLICATE								
C100-10069		1.5	14.02	123	62	0.3	12	
C100-10071A		<0.2	15.32	10	10	<0.1	7	
C100-10071B		<0.2	12.54	29	48	<0.1	14	
C100-10072		1.3	12.02	10	34	<0.1	3	
C100-10073		1.2	20.29	20	13	<0.1	8	
C100-10074		<0.2	12.02	34	35	<0.1	5	



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REPORT: 000-54001.0 PROJECT: 410 10 PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	U	VI	Co	Zn	Ag	Pb	Th
		PPM	PPM	PPM	PPM	PPM	PPM	PPM
M1 A		15	0.1	5	1013 H	12	10	<0.1
DUPLICATE		16	<0.1	5	1013 I	15	24	<0.1
M1 B		8	<0.1	10	1013 J	27	59	<0.1
M1 C		40	7	<1	1013 F	31	104	0.3
M1 D		46	<0.1	1	1014 A	15	100	<0.1
M2 A		35	44	<1	1014 B	63	140	0.2
M2 B		35	40	0.2	1014 C	204	200	0.1
M2 C		35	47	<0.1	1015 A	23	14	0.2
M2 D		42	6	<0.1	0	23	16	0.4
M2 E		6	15	<0.1	1015 B	64	121	0.1
M3 A		36	19	0.1	1015 C	54	24	0.1
DUPLICATE		32	19	0.1	1015 D	103	132	0.1
M3 B		37	7	<0.1	1015 E	29	49	0.1
M3 C		35	5	<0.1	1017 A	199	460	0.4
M3 D		35	27	<0.1	1017 B	82	70	<0.1
M4 A		36	14	<0.1	1017 C	82	34	0.4
M4 B		35	14	<0.1	1017 D	243	245	0.2
M4 C		37	9	<0.1	0	143	147	0.1
M4 D		37	0	0.2	<1	15	242	0.1
M4 E		37	250	<0.1	1018 B	22	63	0.1
M5 A		36	203	<0.1	1018 C	27	27	0.1
M5 B		36	14	<0.1	1019 A	52	143	0.1
M5 C		6	19	<0.1	1019 B	25	27	0.1
M5 D		7	12	<0.1	1019 C	124	209	0.1
M5 E		6	14	<0.1	1019 D	29	50	0.1
M6 A		37	67	<0.1	1019 E	37	31	0.1
M6 B		37	61	<0.1	1019 F	44	11	0.2
M6 C		36	42	<0.1	1019 G	204	20	0.6
M6 D		36	7	<0.1	1019 H	157	54	0.1
M6 E		36	12	<0.1	1019 I	33	126	<0.1
M7 A		36	22	<0.1	1020 A	31	229	<0.1
M7 B		35	15	<0.1	1020 B	69	144	<0.1
M7 C		36	20	<0.1	1020 C	21	60	<0.1
M7 D		36	57	<0.1	1020 D	70	29	<0.1
M7 E		36	53	<0.1	1021 A	19	41	0.3
M8 A		36	100	<0.1	1021 B	42	42	0.1
M8 B		36	50	<0.1	1021 C	22	14	0.5
M8 C		36	23	0.3	1021 D	27	24	0.1
M8 D		36	21	0.1	1021 E	20	16	0.1
M8 E		36	93	<0.1	1021 F	33	11	0.1

REPORT: 000-54001.0 PROJECT: 410 10 PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	U	VI	Co	Zn	Ag	Pb	Th
		PPM	PPM	PPM	PPM	PPM	PPM	PPM
M22 A		117	75	0.2	3			
M22 B		26	113	0.4	2			
M22 C		121	66	0.1	3			
M22 D		61	16	<0.1	2			
M22 E		124	12	0.3	5			
DUPLICATE		120	15	0.2				





Sample ID	LINE	STATION	LITHOLOGY	ALTERATION	NEUTRALIZATION	Na	Fe	Cr	To	Ca	Si	Al	K	Mg	Sr	Ba	Pb	Zn	Co	Ni	Cd	Mn	Pb	Bi	Th	U	VT	Cu	Zn	Fe	Mo		
C180-T813-D	11+00E	9+25S	11C		Py-20X																												
C180-T813-E	11+00E	9+25S	11C		Py-10X																					13			40	100	0.1		
C180-T813-F	11+00E	9+25S	11C		Py-20X																					4			62	60	0.5		
C180-T813-G	11+00E	9+25S	11C		Py-20X																					3			40	73	0.3		
C180-T813-H	11+00E	9+25S	QV Q																						16			61	93	0.05			
C180-T813-I	11+00E	9+25S	QV Q C		Lix-Tc																				0.5			12	10	0.05			
C180-T813-J	11+00E	9+25S	QV Q		Py-2X																					1			15	24	0.05		
C180-T813-K	11+00E	9+25S	QV Q		Py-10X																					2			27	59	0.05		
C180-T814-A	13+00E	3+25S	11C C		Py-50X																					3			31	104	0.3		
C180-T814-B	13+00E	3+25S	11C Q		Py-30X																					6			95	199	0.05		
C180-T814-C	13+00E	3+25S	11C		Py-50X																					9			204	98	0.4		
C180-T815-A	13+15E	3+58S	QV Q C		Py-5X																					9			23	14	0.2		
C180-T815-B	13+15E	3+58S	11C Q		Py-20X																					3			81	121	0.1		
C180-T815-C	13+15E	3+58S	QV																							16			54	24	0.1		
C180-T815-D	13+15E	3+58S	11C Q		Py-20X																					6			163	137	0.1		
C180-T815-E	13+15E	3+58S	QV Q C																							8			29	49	0.1		
C180-T817-A	11+02E	5+95S	11C		Py-20X																					9			190	460	0.4		
C180-T817-B	11+02E	5+95S	11C Q C		HL Py-20X																					45			62	88	0.05		
C180-T817-C	11+02E	5+95S	11C Q		Py-50X																					42			82	34	1.6		
C180-T817-D	11+02E	5+95S	11C		Py-20X																					7			241	145	0.2		
C180-T818-A	0+00	2+85E	7A	CH	Py-10X																					4			85	142	0.05		
C180-T818-B	0+00	2+85E	3AX Q F		G-L-5X																					0.5			22	63	0.05		
C180-T818-C	0+00	2+85E	3AX Q F		Py-5X																					5			47	74	0.05		
C180-T819-A	12+50S*	27+00N	12 C	CH	Py-Tc;Mag-IX																					2			52	143	0.05		
C180-T819-B	12+50S*	27+00N	12 Q C	CH																						13			75	77	0.05		
C180-T819-C	12+50S*	27+00N	12																							4			124	106	0.05		
C180-T819-D	12+50S*	27+00N	12 Q																							7			103	58	0.05		
C180-T819-E	12+50S*	27+00N	12 S		G-L-Tc																					8			90	21	0.05		
C180-T819-F	12+50S*	27+00N	QV Q		Py-5X;Cy-IX																					304			64	11	0.2		
C180-T819-G	12+50S*	27+00N	12 C S		G-L-30X																					12			204	38	0.6		
C180-T819-H	12+50S*	27+00N	12 Q		Py-5X																					4			157	54	0.1		
C180-T819-I	12+50S*	27+00N	12 Q		G-L-5X																					3			33	134	0.05		
C180-T820-A	7+90S*	41+30W	QCY Q C		Py-20X																					3			91	143	0.05		
C180-T820-B	7+90S*	41+30W	12		Py-10X																					4			60	144	0.05		
C180-T820-C	7+90S*	41+30W	11B Q		Py-5X																					2			71	69	0.05		
C180-T820-D	7+90S*	41+30W	11C		Py-20X																					99			78	29	0.05		
C180-T821-A	11+00S*	40+00W	QV Q		Py-5X																					2			39	41	0.3		
C180-T821-B	11+00S*	40+00W	11C		Py-40X																					3			32	14	0.5		
C180-T821-C	11+00S*	40+00W	11C		Py-20X																					2			27	24	0.1		
C180-T821-D	11+00S*	40+00W	11C Q		Py-40X																					4			20	18	0.1		
C180-T821-E	11+00S*	40+00W	11C Q		Py-40X																					4			30	11	0.1		
C180-T822-A	7+50W	4+65E	11C		Py-20X																					3			137	78	0.2		
C180-T822-B	7+50W	4+65E	11C		Py-20X																					2			76	113	0.4		
C180-T822-C	7+50W	4+65E	11C S		Py-20X																					3			121	66	0.1		
C180-T822-D	7+50W	4+65E	11C Q		Py-20X																					2			61	18	0.05		
C180-T822-E	7+50W	4+65E	11C Q		Py-20X																					5			124	12	0.3		

CLARK INDEX

2.27 25 122 6.22 29 99 76 1.8 0.05 2.5 78 162 1.2 0.08 0.16 2.1 0.2 0.00 2.6 390 34.6 66.4 7.02 2.14 1.18 3.1 0.54 2.8 1.7 1.2 0.00 4 8.1 2.3 60 76 0.08 13

LEGEND:

LITHOLOGY

3 METASEDIMENTS  
2C QUARTZ-BIOTITE SCHIST  
2D GRAPHITIC SCHIST  
2G ARGILLITE

5A DOLOMITE  
4 GRANITIC ROCKS  
5 LAVANT GABBRO  
7A NAPlC SYLWITE

11A IRON-FORMATION  
11B PYROCLASTICS  
11C METASEDIMENTS  
12 VOLCANICS

ALTERATION:

Q SILICIFICATION  
C CALCITE CARBONATIZATION  
F IRON CARBONATIZATION  
S SERICITIZATION  
CH CHLORITIZATION  
HEM HEMATIZATION  
SC SCLEROSIS  
BI BIOTITIZATION

LOCATION:

\* NORTHERN GRID  
\* PETERMITE GRID

ANALYSES: LESS THAN VALUES SHOWN AS HALF DETECTION LIMIT

APPENDIX II  
STATISTICAL DATA

## USTATS

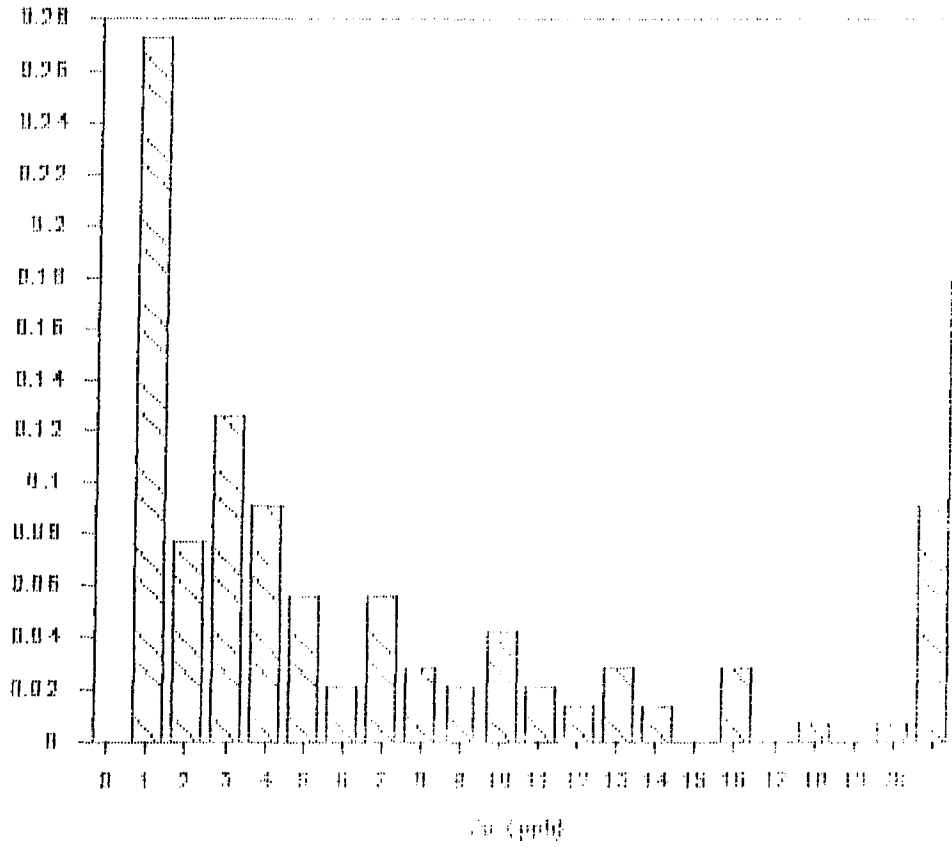
RKSALL  
KINBAURI GOLD CORPORATION

Summary Statistics

Determination :	NA	SC	CR	FE	CO	NI	ZN_1	AS
# samples :	63	63	63	63	63	63	63	63
Minimum value :	0.01	0.4	10	0.3	2.5	10	50	0.9
Maximum value :	4.85	73.3	230	42.7	74	140	400	186.0
Mean :	1.310	15.16	35.6	7.47	13.8	24.9	121.4	28.70
Standard Deviation :	1.3543	14.565	35.96	7.163	16.38	25.08	90.23	40.894
Determination :	SE	BR	RB	ZR	MO	AG 1	CD	SN
# samples :	63	63	63	63	63	63	63	63
Minimum value :	2.5	1.00	2.5	100	0.5	1	2.5	50
Maximum value :	9	5.1	170	500	27	2	3	50
Mean :	2.9	1.19	35.3	120.8	6.0	1.0	2.5	50.0
Standard Deviation :	1.33	0.706	30.42	70.56	7.03	0.16	0.00	0.00
Determination :	SB	TE	CS	BA	LA	CE	SM	EU
# samples :	63	63	63	63	63	63	63	63
Minimum value :	0.1	5	0.3	25	1	2.5	0.26	0.5
Maximum value :	18.7	5	4.2	1300	35	75	7.20	4
Mean :	1.62	5.0	0.57	306.9	10.5	19.7	2.827	0.8
Standard Deviation :	2.525	0.00	0.617	271.41	8.22	15.96	1.7678	0.66
Determination :	TB	YB	LII	HF	TA	W	IR	AU
# samples :	63	63	63	63	63	63	63	63
Minimum value :	0.3	1	0.1	0.5	0.3	0.5	25	1
Maximum value :	2.0	7	0.9	10	1.2	11	25	85
Mean :	0.68	2.5	0.29	2.7	0.35	1.0	25.0	7.9
Standard Deviation :	0.437	1.42	0.195	1.82	0.201	1.43	0.00	12.31
Determination :	TH	II	WT	CU	ZN 2	AG 2	PB	
# samples :	63	63	63	63	63	63	63	
Minimum value :	0.1	0.1	7.45	5	7	0.1	2	
Maximum value :	7.5	5.9	15.32	3960	298	1.6	117	
Mean :	2.34	1.76	10.806	113.5	59.6	0.10	12.0	
Standard Deviation :	1.900	1.607	1.5077	494.65	60.91	0.226	15.87	

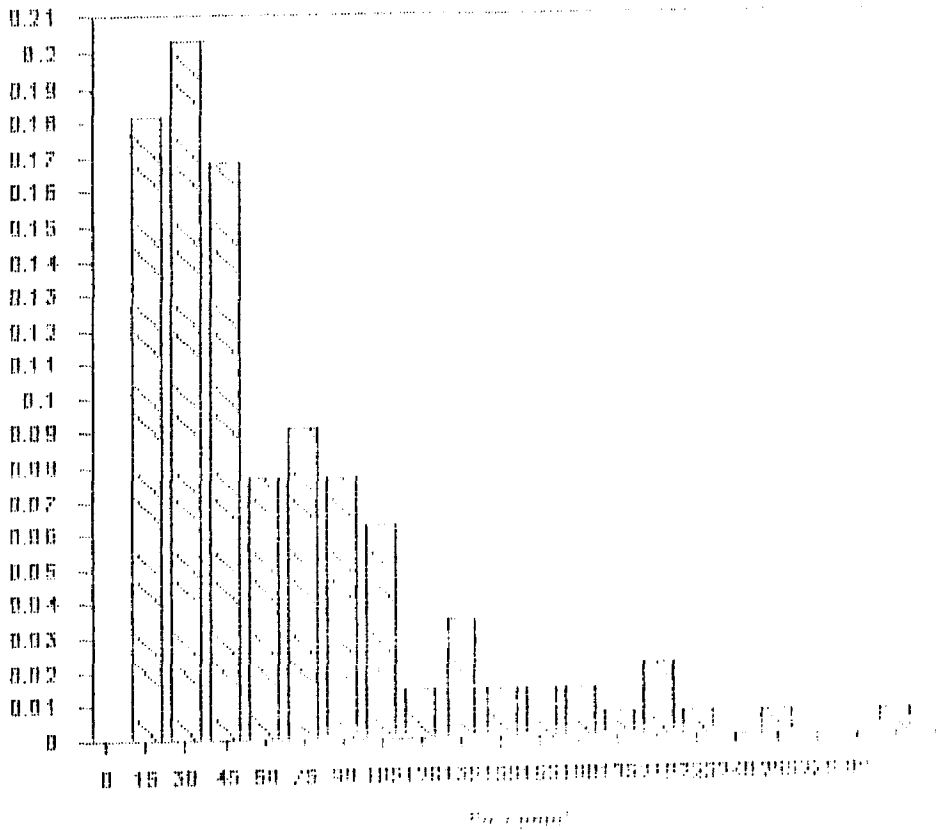
HISTOGRAM OF ALL DATA

FREQUENCY



HISTOGRAM OF ALL DATA

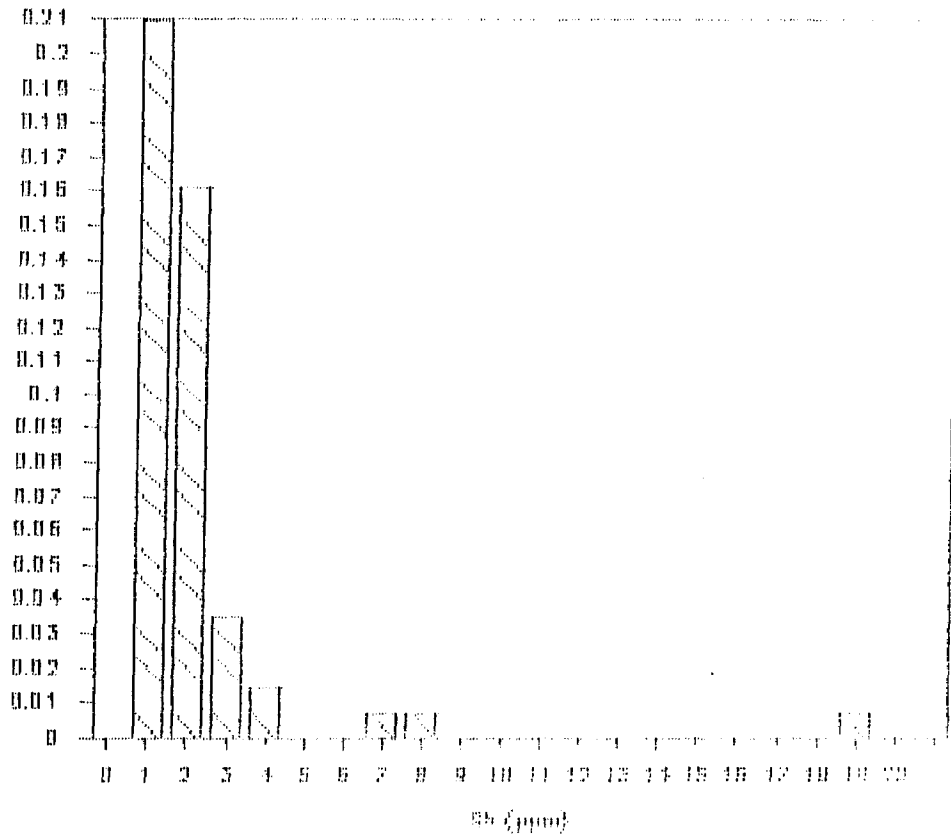
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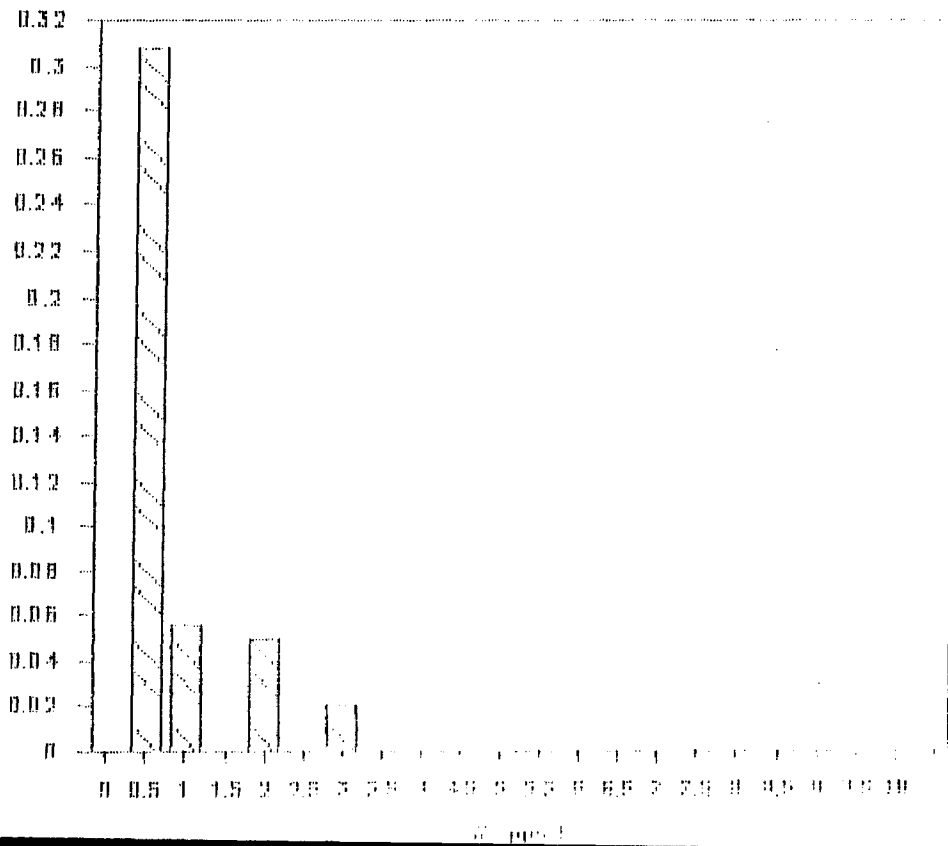
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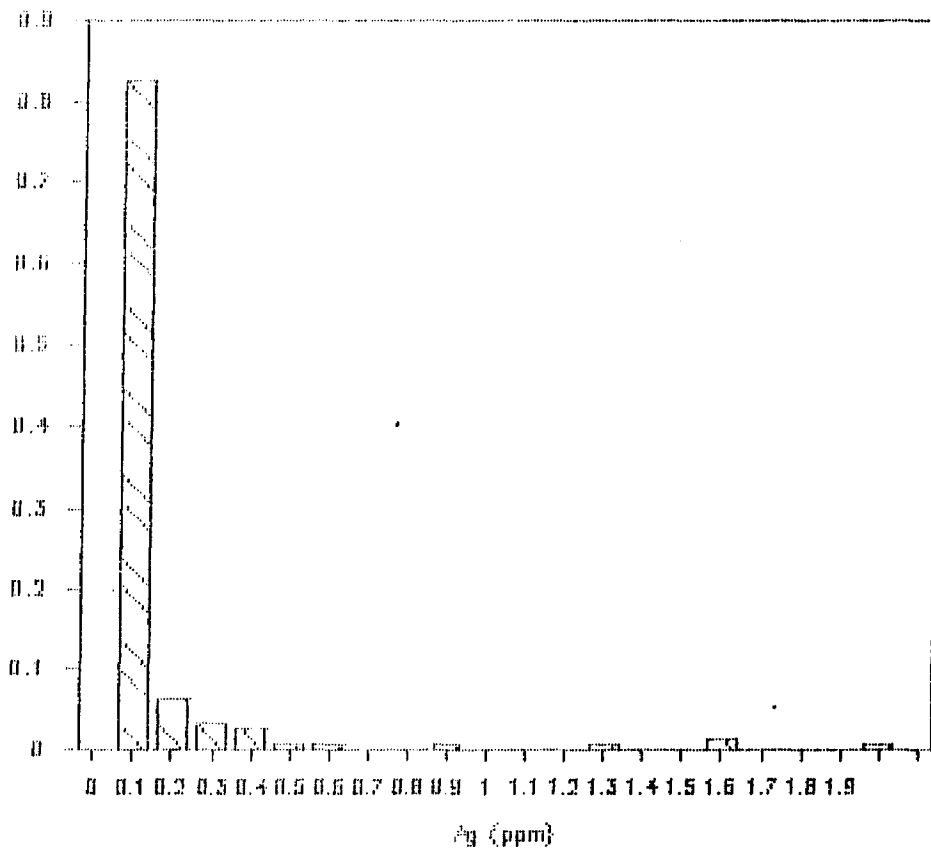
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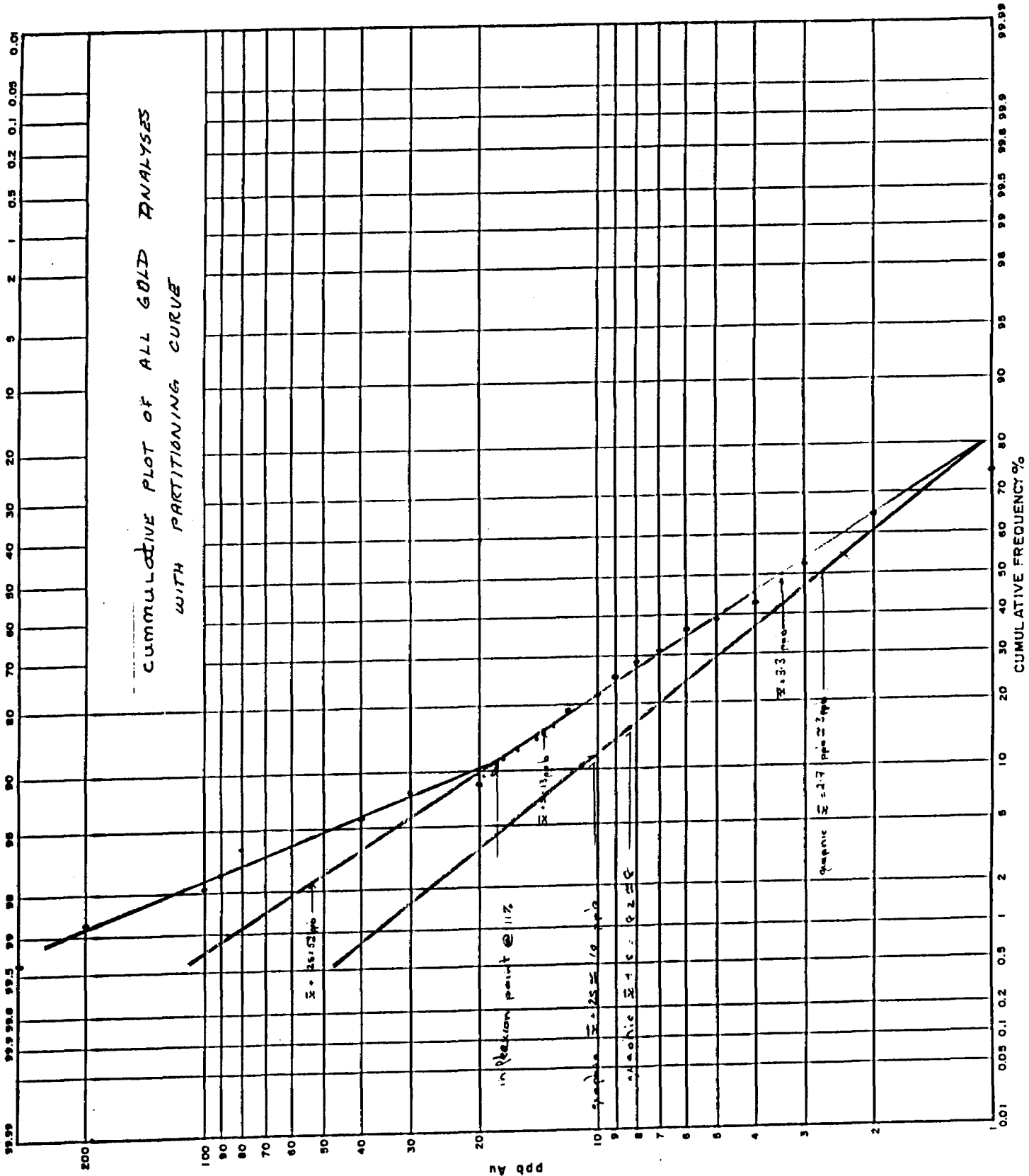


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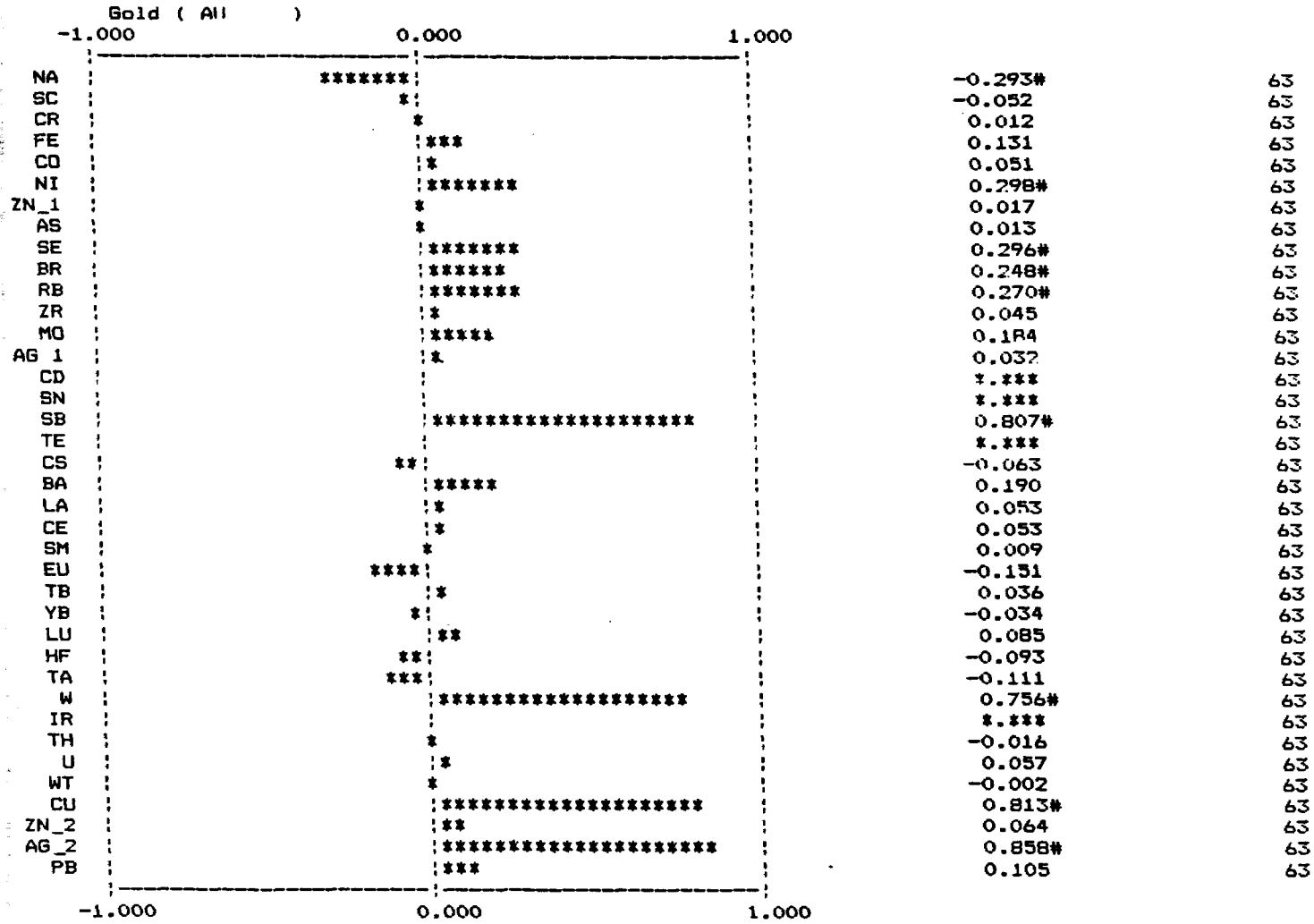
CUMULATIVE PLOT OF ALL GOLD ANALYSES  
WITH PARTITIONING CURVE



CORMAT

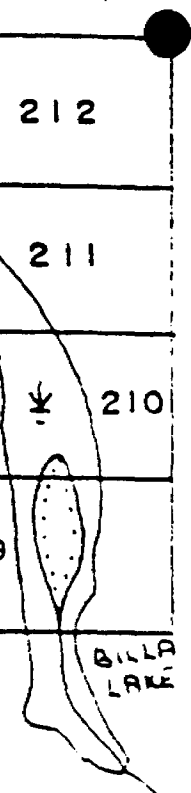
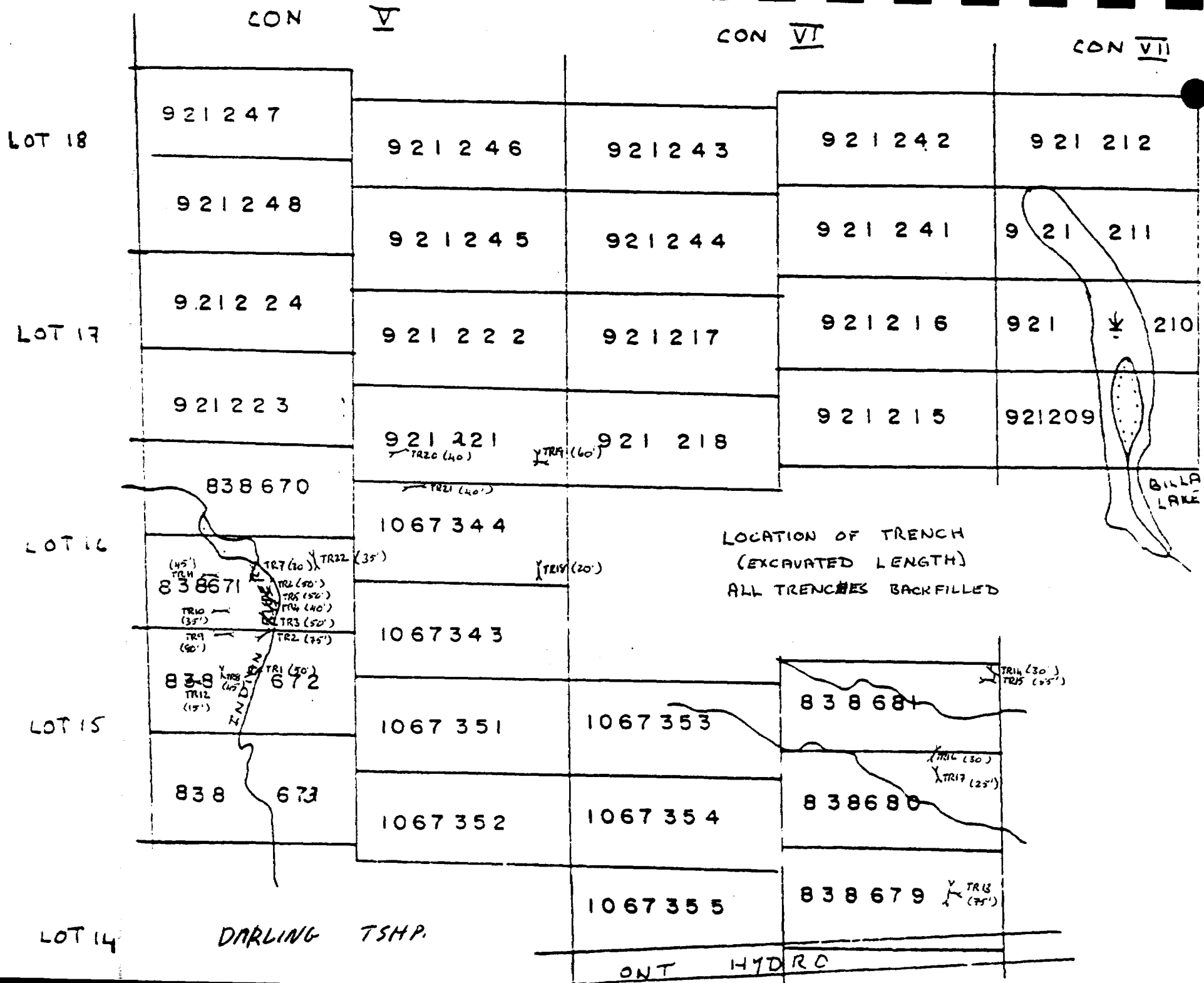
RKSALL  
KINBAURI GOLD CORPORATION

Correlation Chart





APPENDIX III  
TRENCH DESCRIPTIONS



LOCATION OF TRENCH  
 (EXCAVATED LENGTH)  
 ALL TRENCHES BACK FILLED

ONT HYDRO

TRENCH: C188-TR 1

LOCATION:

Line: 10+25W Station: 01+85N

TOPOGRAPHY:

West bank of Indian River. Trench was excavated into a 3 m high scarp which forms the backwall of an approximately 5 m wide terrace at the side of Indian River. This terrace is within the zone of annual flooding.

VEGETATION:

Mixed softwood and hardwood forest, predominantly hemlock.

REGIONAL GEOLOGY:

Map Unit: 11, 3a

Description: A sequence of iron-formation and tuffaceous volcanic units which have been sheared into the dolomitic country rock. The iron-formation sequence outcrops on the east side of Indian River and is believed to be in fault contact with the dolomites that occur under most of the west side of the river.

REASON FOR TRENCHING:

This site was the closest known outcrop to the location of the probable north-south fault underlying Indian River. Whereas the west side of Indian River is predominantly underlain by dolomitic rocks, this outcrop indicated the presence of iron-formations similar to those exposed on the east side of the river. Samples collected from the outcrop (C188-T0049, T0049B) contained anomalous As (65.8 ppm), Zr (500 ppm), Mo (27 ppm), Sb (3 ppm), Ba (1300 ppm), Hf (10 ppm), Au (14 ppb) and above average Cu (59 ppm). The nearby till (-250 mesh fraction) contained 9 ppb gold.

RESULTS OF TRENCHING:

The trench exposed 8 m thickness of iron-formation in contact with 2 m of dolomite on the east side. The dolomite underlies the terrace adjacent to Indian River. The contact between the two units is sharp and is interpreted as being due to shearing.

Samples taken from the trench contained between <1 ppb and 10 ppb Au with background Cu, Zn, and Ag.

SURFICIAL GEOLOGY:

20 - 30 cm of overburden overlay the bedrock surface. It



comprises mainly angular pebbles, cobbles and boulders to 30 cm diameter, abundant pebbles and with minor amounts of silty sand. It is oxydized brown and is loose. The deposit is interpreted as being colluvium, derived from the weathering of the outcrop, with the addition of some alluvial material from Indian River. Some of the material may be of glacial origin.

#### BEDROCK GEOLOGY:

Two units were exposed in the trench. The contact between these two units is parrallel to the foliation at 288°T/58°N.

A: Iron-formation: 8 m of this unit were exposed. It comprises mainly medium grey, medium grained siliceous greywacke with interbeds of sulphide facies iron-formation up to 60 cm thick and several tuffaceous beds. Alteration includes high silicification, moderate to high sericitization, and low chloritization. Up to 20% pyrite occurs in some beds.

B: Carbonate: 3 m of dolomite, dark grey, fine to medium grained occur at the east end of the trench. It is massive and contains some pyrite on fractures.

#### SAMPLE DESCRIPTIONS AND ANALYSES:

C188-TR1-A	Silicified iron-formation, medium grey, very rusty weathering, 10% pyrite.	5 ppb Au
C188-TR1-B	Sulphide facies iron-formation; black, 20% pyrite, 30 - 50 cm thick bed.	10 ppb Au
C188-TR1-C	Greywacke, medium grey, highly silicified, 10 - 20 % sulphides.	<1 ppb Au
C188-TR1-D	Dolomite, dark grey, trace pyrite on fractures.	1 ppb Au

#### INTERPRETATION:

Gold is slightly enriched in the iron-formations and is only present in background amounts in other lithologies. These rocks are not the source of the gold in -250 mesh till anomalies in the area.

TRENCH: C188-TR 2

LOCATION:

Line: 10+00W Station: 02+67N

TOPOGRAPHY:

West bank of Indian River. Trench excavated across the top of a broad ridge rising 4 m above the adjacent Indian River flood plain.

VEGETATION:

Mixed hardwoods with some hemlock and fir.

REGIONAL GEOLOGY:

Map Unit: 11, 3a

Description: A sequence of iron-formation and tuffaceous volcanic units which have been sheared into the dolomitic country rock. The iron-formation sequence outcrops on the east side of Indian River and is believed to be in fault contact with the dolomites that occur under most of the west side of the river.

REASON FOR TRENCHING:

Verification of outcrop and an attempt to expose the contact between the carbonate and iron-formation units. Anomalous Au in -250 mesh fraction of till was obtained along this line.

RESULTS OF TRENCHING:

Dolomite in shear contact with a shale + greywacke + iron-formation unit was exposed. The shearing is at 333°T/67°E. All rocks are highly silicified with quartz veins up to 30 cm wide. Pyrite, arsenopyrite, and chalcopyrite mineralization is present in the quartz veins. Near the contact, pyrite is present on fractures in the greywacke and in 5 x 10 mm blebs in the dolomite. Gold contents varied from <1 ppb to 8 ppb; other metals are at background or slightly enriched levels.

SURFICIAL GEOLOGY:

Up to 1 m of loose, silty, sandy till with cobbles up to 10 cm diameter overlies 0.5 - 0.7 m compact, sandy, gravelly till. This latter material was sampled in the deepest part of the trench.

BEDROCK GEOLOGY:

Two units were exposed in the trench:

1. Carbonate: dark grey, finely crystalline dolomite, weathers brown. Near the shear contact with the iron-formation unit, the dolomite contains up to 5% sulphides (mainly pyrite) in blebs up to 5 x 10 mm.
2. Iron-formation: interbedded greywacke, 0.5 cm beds of black iron formation and minor shale. All units are highly silicified both pervasively and by quartz veins. Pyrite is most abundant in the greywacke adjacent to the shear contact with the dolomite where up to 2% pyrite is present mainly on fractures.

#### SAMPLE DESCRIPTIONS AND ANALYSES:

- CI88-TR2-A: Highly silicified greywacke with 0.5 cm beds of iron-formation. No visible sulphides. 2 ppb Au
- CI88-TR2-B: Highly silicified iron-formation and greywacke with trace-2% sulphides. 2 ppb Au
- CI88-TR2-C: Quartz vein, 30 cm wide, with 2% sulphides (Pyrite, arsenopyrite ?). <1 ppb Au
- CI88-TR2-D: Dolomite, dark grey, 5% sulphides. 8 ppb Au

#### INTERPRETATION:

Gold is slightly enriched in the dolomite; silver is slightly enriched in the sulphide rich iron-formation. These lithologies are not the source of gold in the -250 mesh till.

TRENCH: CI88-TR 3

LOCATION:

Line: 10+00W Station: 03+00N

TOPOGRAPHY:

Trench was excavated across a 2 m deep, broad gully between two broad ridges.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Map unit: 3a, 3ax

Predominantly dolomite with some ferroan dolomite.

REASON FOR TRENCHING:

Verification of outcrop and an attempt to expose the contact of the carbonates with the adjacent iron-formation sequence. The trench was excavated into the low ground between two ridges to determine if there was a change in lithology.

RESULTS OF TRENCHING:

Only dark grey dolomite was exposed in the trench. In places it is highly silicified; in other places it is highly fractured and the fractures have been filled with Fe-carbonate. Gold contents ranged from 10 ppb to 28 ppb; other metals are at background levels.

SURFICIAL GEOLOGY:

0.3 - 0.5 m chocolate brown, sandy, silty, fairly loose till.

BEDROCK GEOLOGY:

Dark grey, finely crystalline dolomite. It is pervasively silicified in places. Abundant 1 - 2 cm clear quartz veins are also abundant in places. Other places the rock is highly fractured and the fractures are filled with iron-carbonate.

SAMPLE DESCRIPTIONS AND ANALYSES:

CI88-TR3-A:	Silicified dolomite with quartz veinlets.	10 ppb Au
CI88-TR3-B:	Fractured dolomite with 40%	28 ppb Au

iron-carbonate fracture filling;  
trace pyrite.

**INTERPRETATION:**

Anomalous gold was found in this trench. Other elements are at background levels. The presence of high gold contents in silicified rocks indicates that the gold in till anomalies may be derived from similar settings.

TRENCH: CI88-TR 4

LOCATION:

Line: 10+00W Station: 03+45N

TOPOGRAPHY:

2 - 3 m high parrallel ridges. Trench excavated down the side of a ridge.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 3a

Dark grey banded dolomite.

REASON FOR TRENCHING:

Confirmation of outcrop and an attempt to explain the ridged topography. 44 ppb Au in -250 mesh fraction of till anomaly to the south at 3+00N.

RESULTS OF TRENCHING:

Grey, banded dolomite with minor secondary calcite as fracture fillings and irregular masses. One grain of pyrite present on a fracture. Much actinolite present in places. Gold content of <1 ppb were obtained; other metals are at background levels.

SURFICIAL GEOLOGY:

30 - 50 cm brown, oxydized ?, silty, sandy, till. Few carbonate boulders present.

BEDROCK GEOLOGY:

Grey dolomite, well banded at 357°T/78°E. Some secondary calcite in irregular masses and as fracture fillings. One grain of pyrite noted on a fracture. Abundant actinolite present in places.

SAMPLE DESCRIPTIONS AND ANALYSES:

CI88-TR4-A: Actinolite rich dolomite. <1 ppb Au

INTERPRETATION:

No significant metallization was found in this trench.

TRENCH: CI88-TR 5

LOCATION:

Line: 10+00W Station: 03+70N

TOPOGRAPHY:

2 - 3 m high parrallel ridges. Trench excavated down the side of a ridge.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 3a

Dark grey, finely banded dolomite. some fine shale partings.

REASON FOR TRENCHING:

Confirmation of outcrop and an attempt to explain the ridged topography. 44 ppb Au in -250 mesh fraction of till anomaly to the south at 3+00N.

RESULTS OF TRENCHING:

Dark grey dolomite is present throughout the trench. Some alteration is present, however only traces of sulphide mineralization were observed. All metals are at background levels.

SURFICIAL GEOLOGY:

0.5 - 0.7 m light brown, loose, sandy, silty till overlying 0.3 m dark brown, fairly compact, sandy till. The latter (lower) unit was sampled.

BEDROCK GEOLOGY:

Grey, banded finely dolomite with some fine shale partings. The banding is at 357°T/52°E. Some secondary calcite on fractures. At the east end of the pit, the dolomite is highly fractured and the voids are filled with iron-carbonate. A honeycomb weathering texture is believed to be caused by silicification of the dolomite. Sericite is present on some foliation planes. Traces of pyrite are present on fractures.

SAMPLE DESCRIPTIONS AND ANALYSES:

CI88-TR5-A: Fractured, silicified dolomite <1 ppb Au

with fractures filled with  
iron-carbonate, Trace pyrite.

INTERPRETATION:

The fine banding is interpreted as being tectonically induced. Significant metallization was not discovered at this trench.



TRENCH: C188-TR 6

LOCATION:

Line: 10+00W Station: 04+40N

TOPOGRAPHY:

2 - 3 m high parrallel ridges. Trench excavated down the side of a ridge.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 3a

Dark grey banded dolomite.

REASON FOR TRENCHING:

Confirmation of outcrop and an attempt to explain the ridged topography. 17 ppb Au in -250 mesh fraction of till anomaly to the south at 4+00N.

RESULTS OF TRENCHING:

Dark grey dolomite exposed throughout trench. Fracturing and alteration increase toward the southeast end of the trench. Traces of pyrite are present. Significant metallization was not found in this trench.

SURFICIAL GEOLOGY:

0.5 m brown, silty, sandy till with abundant cobbles and few boulders of dolomite. fairly compact.

BEDROCK GEOLOGY:

Dark grey dolomite, generally massive and finely crystalline. North end of trench has a few fractures <1 mm wide, some containing traces of pyrite. Toward the southeast end of the trench, the fracturing and shearing increases; fractures (1-3 mm wide) are filled with pyrite. Some chlorite and sericite is present on shears. Shear zones are soft, contain no visible pyrite and are oriented at 017°T/53°E.

SAMPLE DESCRIPTIONS AND ANALYSES:

C188-TR6-A: Composite of chips of rock not analysed  
from north end of trench.

CI88-TR6-B: Dolomite with few calcite filled <1 ppb Au  
fractures with pyrite.

CI88-TR6-C: Dolomite with abundant calcite <1 ppb Au  
filled fractures.

**INTERPRETATION:**

No significant metallization was found in this trench.

TRENCH: CI88-TR 7

LOCATION:

Line: 10+18W Station: 05+00N

TOPOGRAPHY:

Low ground adjacent to Indian River to the south of as large swamp. The trench extended from the low ground to the north, up the side of a 3 m high slope.

VEGETATION:

Softwoods

REGIONAL GEOLOGY:

Unit: 3a

Dark grey banded dolomite.

REASON FOR TRENCHING:

An attempt to determine the nature of the rock underlying the large swamp on the Indian River. 9 ppb Au in -250 mesh fraction of till anomaly to the south at 5+00N.

RESULTS OF TRENCHING:

Dark grey, very soft dolomite. No apparent mineralization or alteration. Metal contents are at background levels.

SURFICIAL GEOLOGY:

2.5 m cobbly, silty, sandy till; fairly compact with depth.

BEDROCK GEOLOGY:

Soft, dark grey dolomite. Although this rock must be broken with a hammer, it can be crumbled between the fingers. One knob near the middle of the trench is composed of more coarsely crystalline dolomite. The dolomite is finely banded and highly contorted.

SAMPLE DESCRIPTIONS AND ANALYSES:

CI88-TR7-A: Typical soft dolomite as described <1 ppb Au above.

INTERPRETATION:

The soft nature of the rock could be a function of continuous leeching by ground water. This could be enhanced by

repeated flooding of the area by acidic waters of beaver dams.  
No significant metallization was found.

TRENCH: C188-TR 8

LOCATION:

Line: 11+10W Station: 02+00N

TOPOGRAPHY:

Crest of hill

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 3a, 12

Grey dolomite at contact of sequence of iron-formation and greywacke beds. Outcrop nearby indicates that the two units are in a shear contact.

REASON FOR TRENCHING:

Confirmation of geology seen in outcrop and to expose possible mineralization. 70 ppb Au in -250 mesh fraction of till to the southwest at L12W 1+50N.

RESULTS OF TRENCHING:

A 3 m wide shear zone cuts across dark grey dolomite. The shear zone may have incorporated some gabbroic material. Silicification is common in the dolomite whereas chloritization and sericitization are present in the sheared material. 10 ppb Au and 258 ppm Zn were found in the mylonitic rocks.

SURFICIAL GEOLOGY:

0.2 - 0.5 m reddish brown, loose, silty, sandy till. Sample was taken above the shear zone but the rotten shear zone rock was avoided.

BEDROCK GEOLOGY:

Trench exposed 15 m of grey, fine-medium grained, finely banded dolomite with some Fe-carbonate bands. The rock weathers reddish brown. The banding is at 319°T/79NE. 3 cm quartz veins are present. Traces of fine grained pyrite are disseminated in the dolomite. A 3 m wide shear zone composed of deeply weathered rock occurs in the central part of the trench. The rock is a carbonated mylonite which has been moderately chloritized and sericitized. Trace-1% goethite-limonite occurs throughout the shear zone. This lithology could be derived from gabbro.

SAMPLE DESCRIPTIONS AND ANALYSES:

CI88-TR8-A:	Medium grey dolomite, trace pyrite	<1 ppb Au
CI88-TR8-B:	Quartz vein, 3 cm wide, trace pyrite	<1 ppb Au
CI88-TR8-C:	Shear zone, trace-1% goethite-limonite	10 ppb Au

INTERPRETATION:

10 ppb Au and 258 ppm Zn were obtained from the sample of the shear zone. This would appear to be a favourable zone for metal enrichment. The quartz vein is only enriched in Ag (0.2 ppm). Since regionally there is an association of gold with silver, further prospecting of quartz veins in this area may reveal more extensive mineralization. All other results are at low background levels.

TRENCH: C188-TR 9

LOCATION:

Line: 11+00W Station: 03+00N

TOPOGRAPHY:

On the crest of a spur at the base of a steep, long slope up to the west.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 3a

Grey dolomite. Nearby outcrop indicates the presence of gabbro to the south and probably west.

REASON FOR TRENCHING:

Confirmation of geology seen in outcrop and to expose possible mineralization. 20 ppb Au in -250 mesh fraction of till at this site.

RESULTS OF TRENCHING:

Dark grey banded dolomite exposed throughout trench. Possible shear zone in western trench. Ferroan dolomite alteration increases toward the west. Traces fine disseminated pyrite. The results indicate the presence of only background levels of metals.

SURFICIAL GEOLOGY:

0.2 - 2.0 m brown, loose, silty, sandy till.

BEDROCK GEOLOGY:

Medium-dark grey dolomite, weathering brown to reddish brown toward the western end of the trenches where the Fe-carbonate content increases. Trace fine grained, disseminated pyrite throughout. Dolomite generally massive to finely banded at 338°T/57°NE. Abundant fractures parallel to banding in places filled with quartz and/or calcite.

SAMPLE DESCRIPTIONS AND ANALYSES:

C188-TR9-A:	Grey, finely banded, dolomite	1 ppb Au
C188-TR9-B:	Silicified grey dolomite with	1 ppb Au

some calcite on fractures.

CI88-TR9-C: Grey dolomite with bands of Fe-carbonate. 1 ppb Au

CI88-TR9-D: Grey dolomite, sheared ?, rotten. <1 ppb Au

INTERPRETATION:

No significant metallization was found.



TRENCH: C188-TR 10

LOCATION:

Line: 11+10W Station: 03+97N

TOPOGRAPHY:

Base of long steep slope up to the west.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 3a, 5b

Grey dolomite at contact of gabbro. Contact is believed to be a result of shearing.

REASON FOR TRENCHING:

To expose the contact of the dolomite with the gabbro.

RESULTS OF TRENCHING:

The sheared contact between gabbro to the west and dolomite to the east was exposed. The gabbro was mylonitized, highly carbonatized and chloritized near the contact and contained 1-2% pyrite. The dolomite was Fe rich, highly silicified, bleached?, and contained up to 5% pyrite. Gold contents ranged from <1 ppb to 31 ppb. Other metals are at background levels.

SURFICIAL GEOLOGY:

0.3 - 2.0 m sandy, silty, very bouldery (mainly gabbro) till. Some lenses (20 x 300 cm) of stratified medium sand. Lowest 35 cm of the till section is composed of angular pebbles and cobbles probably representing deformation till or deformed bedrock (Dreimanis, 1976). Note that the till is much thicker over the gabbro (2 m) than over the dolomites (0.3 m).

BEDROCK GEOLOGY:

Dark green, medium grained, gabbro was exposed at the western end of the trench. It is highly carbonatized and chloritized, and moderately silicified with 1-2 mm seams of pyrite on fractures. The degree of mylonitization and the pyrite content increases eastward toward the contact with dolomite. The dolomite is dark grey, fine grained at the extreme east end of the trench becoming white (bleached?) and then Fe-rich toward the contact with the gabbro. Silicification as 1-2 mm quartz stringers and pyrite content (trace-1%) increases toward the

gabbro. Foliation is at 342°T/52°NE.

SAMPLE DESCRIPTIONS AND ANALYSES:

- C188-TR10-A: Gabbro, sheared and highly altered. <1 ppb Au  
1% pyrite.
- C188-TR10-B: Mylonitized gabbro, 1-2% pyrite. <1 ppb Au
- C188-TR10-C: Mylonitized gabbro, 5% disseminated 31 ppb Au  
and massive pyrite.
- C188-TR10-D: Ferroan dolomite, light grey 1 ppb Au  
weathers rusty, highly silicified,  
trace-1% fine grained, disseminated  
pyrite. This sample was taken  
almost under picket.
- C188-TR10-E: White (bleached ?) dolomite, 4 ppb Au  
moderately silicified, 1% fine  
grained, disseminated pyrite.

INTERPRETATION:

Gold is anomalous in the mylonitized gabbro at the contact with the ferroan dolomite. This contact may be the source of the gold indicated in the till survey. Further trenching or drilling along this contact may reveal more significant metallization.

TRENCH: C188-TR 11

LOCATION:

Line: 10+85W Station: 04+95N

TOPOGRAPHY:

Side of steep slope down to east.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 3ax

Ferroan dolomite, cream-yellow, rusty weathering.

REASON FOR TRENCHING:

Attempt to expose the contact of the dolomite with the gabbro. 6 ppb Au in -250 mesh fraction of till at this site.

RESULTS OF TRENCHING:

Highly silicified ferroan dolomite with up to 5% pyrite was exposed. Significant gold metallization was discovered in this trench. Gold values of 87 and 16 ppb were obtained with some associated copper (198, 43 ppm).

SURFICIAL GEOLOGY:

0.5 - 0.7 m brown, oxydized, loose till over 2.0 -2.5 m greenish grey compact till. Lower till is very silty with some sand and pebbles. Many large boulders of rotten gabbro, mylonite, iron-formation and dolomite (similar to that seen in trench 7) are present; many contain 2-5% pyrite.

BEDROCK GEOLOGY:

Ferroan dolomite, silicified by 2-3 mm quartz veinlets with 2 - 5% fine grained, pyrite disseminated throughout. Abundant Fe-carbonate fracture fillings up to 8 mm wide.

SAMPLE DESCRIPTIONS AND ANALYSES:

C188-TR11-A:	Silicified ferroan dolomite, well banded, trace pyrite. May be a boulder.	Not analysed
C188-TR11-B:	Silicified ferroan dolomite, 5% pyrite.	87 ppb Au

CI88-TR11-C: Ferroan dolomite with abundant 16 ppb Au  
Fe-carbonate veinlets.

CI88-TR11-D: Gabbro, rotten, boulder? Not analysed

INTERPRETATION:

Significantly anomalous gold was found in these highly altered rocks. There is some associated anomalous copper (198 ppm in sample B, and 16 ppm in C); this association of copper with gold has been demonstrated on a regional scale. The ferroan dolomite was probably formed along the contact of the gabbro and the dolomite by mylonitization and later alteration. This environment has been shown to be a favourable locale for gold mineralization in the Robertson Lake Shear Zone to the west. This contact/shear zone warrants further investigation.

TRENCH: CIBB-TR 12

LOCATION:

Line: 12+10W Station: 01+75N

TOPOGRAPHY:

Flat terrace at side of large swamp adjacent to Indian River.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 3a?

Grey dolomite. Gabbro outcrops 35 m to the north.

REASON FOR TRENCHING:

Identification of geology beneath swamp and an attempt to explain the 70 ppb Au in -250 mesh fraction of till to the south at L12W 1+50N.

RESULTS OF TRENCHING:

Pit flooded at 3.5 m depth and was abandoned.

SURFICIAL GEOLOGY:

3.5 m brown, very (40%) cobbly, (30%) pebbly, (20%) sandy till with 10% silt. Most clasts are very angular and are of very dark green, very fine grained, highly chloritized mafic mylonite with traces of pyrite. More rounded clasts are present in the upper 2 m and are of other lithologies.

BEDROCK GEOLOGY:

Bedrock was not exposed.

SAMPLE DESCRIPTIONS AND ANALYSES:

CIBB-TR12-A: Selection from boulders from Not analysed  
the lowest part of the pit.

TRENCH: CI88-TR 13

LOCATION:

Line: 11+00E Station: 09+25S

TOPOGRAPHY:

Crest of low rise to the south of a large cedar swamp.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 11a

Interbedded iron-formation and greywacke.

REASON FOR TRENCHING:

To expose large quartz vein discovered during mapping. 9 ppb Au in -250 mesh fraction of till occurs to the south at L11E 10+00S

RESULTS OF TRENCHING:

Interbedded black iron-formation and light green greywacke were exposed. This sequence was cut by a 3 m wide quartz vein oriented at  $048^{\circ}T/32^{\circ}SE$ . The host rock at the margins of the quartz vein are highly silicified and contain up to 10% pyrite. Gold values ranged from <1 ppb to 16 ppb; one sample contained anomalous Ag at 0.3 ppm. Other results were at background levels.

SURFICIAL GEOLOGY:

0.5 - 2.0 m, brown, oxydized, loose, very silty till with some sand and pebbles. Cobbles and boulders to 20 cm diameter are also present. All large clasts are angular and locally derived.

BEDROCK GEOLOGY:

Black, fine grained iron formation containing up to 20% sulphides is interbedded with light green, medium-fine grained greywacke beds. All units are highly silicified by 5-8 mm quartz veinlets parrallel to the highly deformed bedding. The quartz vein is 3 m wide and oriented at  $048^{\circ}T/32^{\circ}SE$ . It is dirty looking quartz with cavities which may have contained calcite. Pyrite is concentrated near the margins of the vein as  $3 \times 5$  mm and in the adjacent highly silicified wall rock. Some fragments of the wall rock occur in the vein.

SAMPLE DESCRIPTIONS AND ANALYSES:

CI88-TR13-A:	Iron-formation, 20 % pyrite.	3 ppb Au
CI88-TR13-B:	Iron-formation, 20 % pyrite.	3 ppb Au
CI88-TR13-C:	Iron-formation, 20 % pyrite.	5 ppb Au
CI88-TR13-D:	Iron-formation, 20 % pyrite.	13 ppb Au
CI88-TR13-E:	Iron-formation, 10 % pyrite.	4 ppb Au
CI88-TR13-F:	Iron-formation, 20% pyrite, some as 2-3 mm seams.	3 ppb Au
CI88-TR13-G:	Iron-formation, 20% fine disseminated pyrite. Some pyrite and chalcopyrite? concentrated on fractures.	16 ppb Au
CI88-TR13-H:	West side of quartz vein	<1 ppb Au
CI88-TR13-I:	Central part of quartz vein; some cavities after calcite?; some limonite stain.	1 ppb Au
CI88-TR13-J:	East side of quartz vein with 3 x 5 mm lenses of pyrite and some blebs of wall rock.	2 ppb Au
CI88-TR13-K:	Wall rock: iron-formation, highly silicified, 10% fine, disseminated pyrite.	3 ppb Au

INTERPRETATION:

Two anomalous gold contents were obtained in the iron-formation. The gold contents of the quartz vein are low. Some enrichment of silver at anomalous levels (0.3 ppm) in samples F and K are not associated with the high gold values. The iron-formations contained enriched quantities of these metals on a regional scale and these values may not be significant. They may be responsible for the weak till anomaly to the south.

TRENCH: C188-TR 14

LOCATION:

Line: 13+00E Station: 03+255

TOPOGRAPHY:

Flat, low lying area beside a small swamp. Trench may in excavated in part in artificial fill.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 11a

Interbedded iron-formation and greywacke.

REASON FOR TRENCHING:

To expose interesting geology in area of high Au in -250 mesh fraction of till.

RESULTS OF TRENCHING:

Interbedded black iron-formation, silicified and carbonatized with up to 50% pyrite. Only background gold values were obtained from the rocks of this trench (4 - 9 ppb). Anomalous copper (204 ppm) with associated silver (0.4 ppm) and high gold (9 ppb) were obtained from one sample. Another sample contained anomalous zinc (199 ppm).

SURFICIAL GEOLOGY:

2 m, brown, oxydized, loose, silty sandy till with abundant boulders of iron-formation.

BEDROCK GEOLOGY:

Black, fine grained iron formation containing up to 50% disseminated pyrite occurring in fine and medium grain sizes. Silicified with 2-30 mm quartz veinlets and carbonatized with calcite occurring on fractures.

SAMPLE DESCRIPTIONS AND ANALYSES:

C188-TR14-A: Iron-formation, 30-50% pyrite, 6 ppb Au  
some calcite on fractures.

C188-TR14-B: Silicified iron-formation with 4 ppb Au  
30% pyrite.



CIBB-TR14-C: Sulphide rich iron-formation

9 ppb Au

INTERPRETATION:

High gold with associated anomalous copper (204 ppm) and silver (0.4 ppm) were found in sample C. The association of these three elements has been shown on a regional scale. The metallization appears to be associated with the pyrite as well. Anomalous zinc (199 ppm) was reported in sample A. Iron-formations are known to be suitable targets for gold mineralization. This unit may be the source of the gold found in the tills in the area, however it is probable that a more enriched source is present within this unit. Further prospecting or trenching will be required in order to delimit this source.

TRENCH: CI88-TR 15

LOCATION:

Line: 13+15E Station: 03+585

TOPOGRAPHY:

Flat area adjacent to swamp.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 11a

Interbedded iron-formation and greywacke.

REASON FOR TRENCHING:

To expose interesting geology in area of high Au in -250 mesh fraction of till.

RESULTS OF TRENCHING:

Interbedded black iron-formation, highly silicified with quartz veins and lenses up to 20 cm wide. The iron-formation is generally quite soft and contains 5 - 20% pyrite. Background gold contents are present in the iron-formation (3, 6 ppb), however the gold is enriched in the quartz-calcite veins (8 - 16 ppb). Other metals are at background levels.

SURFICIAL GEOLOGY:

0.2 - 0.7 m, reddish brown, highly oxydized, loose, silty till with few pebbles.

BEDROCK GEOLOGY:

Black, fine grained iron formation containing up to 20% pyrite. Quartz veinlets to 20 cm wide and quartz lenses up to 8 x 40 mm in size, occur throughout the trench. Quartz veinlets are subhorizontal to gently eastward dipping. The iron-formation is soft perhaps implying leaching.

SAMPLE DESCRIPTIONS AND ANALYSES:

CI88-TR15-A: 20 cm wide quartz vein containing 9 ppb Au  
5% disseminated casts after  
pyrite. Strong leaching infers a  
quartz-calcite vein.

CI88-TR15-B: Iron-formation with 20% pyrite and quartz lenses. 3 ppb Au

CI88-TR15-C: Quartz-calcite(?) vein, rotten. 16 ppb Au

CI88-TR15-D: Iron-formation with 20% pyrite, some quartz veinlets. 6 ppb Au

CI88-TR15-E: Quartz-calcite vein, 3-5 cm thick. 8 ppb Au

INTERPRETATION:

The gold present in the iron-formation has been enriched in the quartz-calcite veins. Propecting along strike within this unit may reveal more extensive quartz-calcite veins that may contain economic concentrations of gold.

TRENCH: C188-TR 16

LOCATION:

Line: 11+05E Station: 05+40S

TOPOGRAPHY:

Gentle north facing slope.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 11a, 7a

11a: Interbedded iron-formation and greywacke

7a: Mafic mylonite

REASON FOR TRENCHING:

To confirm geology of outcrops and to determine contact relationship between mafic mylonite and iron-formation.

RESULTS OF TRENCHING:

Only gabbro was exposed. Abundant boulders of pyrite rich iron-formation occur in the till. Outcrops previously mapped along road are probably large boulders.

SURFICIAL GEOLOGY:

0.4 - 3.0 m till. Upper 40 cm of the section is very red, silty, pebbly, hard, compact, oxydized till. The lower part is yellowish brown, very silty, very hard and compact till with abundant boulders of iron-formation. The section gets thicker toward the road (north). Striations on the gabbro surface indicate ice flowed at 184°T.

BEDROCK GEOLOGY:

Very hard, massive, fine grained, dark green mylonitized gabbro.

SAMPLE DESCRIPTIONS AND ANALYSES:

C188-TR16-A: Iron-formation, pyrite rich; Not analysed  
boulder.

C188-TR16-B: Mylonitized gabbro. Not analysed

TRENCH: CIBB-TR 17

LOCATION:

Line: 11+02E Station: 05+955

TOPOGRAPHY:

Gentle south facing slope.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 11a

11a: Interbedded iron-formation and greywacke

REASON FOR TRENCHING:

To confirm geology of outcrops and to investigate copper rich iron-formation.

RESULTS OF TRENCHING:

Silicified iron-formation, containing up to 60% pyrite was exposed. Anomalous gold (42, 45 ppb), silver (0.4, 1.6 ppm), zinc (460 ppm), and copper (190, 241 ppm) were found in this trench. Although metal associations are erratic, the highest gold and silver contents were found in the silicified iron-formations.

SURFICIAL GEOLOGY:

Very sandy, silty, brown, hard, compact till. Clasts are predominantly of iron-formation. 1.5 - 2.5 m thick.

BEDROCK GEOLOGY:

Black, fine grained, well banded iron-formation with up to 60% massive pyrite was exposed. Pyrite occurs in beds and also as 1 - 3 mm seams. Silicification as quartz eyes and quartz-calcite veinlets is present throughout. Rock is strongly foliated possibly from shearing. Strong foliation at 070°T/62°E.

SAMPLE DESCRIPTIONS AND ANALYSES:

CIBB-TR17-A:	Iron-formation, 10-20% pyrite in irregular seams.	9 ppb Au
CIBB-TR17-B:	Bleached? iron-formation with quartz-calcite veins and 1-3 mm	45 ppb Au

seams of pyrite.

CI88-TR17-C: Iron-formation with 60% massive, 42 ppb Au  
fine grained pyrite and some  
quartz eyes.

CI88-TR17-D: Iron-formation with 20% pyrite 7 ppb Au  
some as 1-2 mm seams.

INTERPRETATION:

The highest gold values were recorded for the silicified rocks. Sample C has associated silver (1.6 ppm). Sample A contains anomalous copper (190 ppm), zinc (460 ppm) and silver (0.4 ppm); sample D contains anomalous copper (241 ppm with elevated silver (0.2 ppm). This unit appears to be favourable for gold metallization; economic concentrations may be present where the gold has been concentrated by quartz veining. Further prospecting or trenching is warranted along strike.

TRENCH: C188-TR 18

LOCATION:

Line: 00+00 Station: 02+85N

TOPOGRAPHY:

Gentle north facing slope.

VEGETATION:

Mixed hardwoods.

REGIONAL GEOLOGY:

Unit: 5a, 7a

5a: dolomite

7a: mafic mylonite

REASON FOR TRENCHING:

To confirm geology of outcrops to the north of 27 ppb Au in -250 mesh fraction of till.

RESULTS OF TRENCHING:

Mafic mylonite containing 10% pyrrhotite in contact with dolomite containing 5 mm seams of pyrite. No significant metallization was discovered in this trench.

SURFICIAL GEOLOGY:

0.5 - 2.0 m brown, compact, hard, very silty till with some sand and few pebbles. Top 0.5 m is loose and oxydized.

BEDROCK GEOLOGY:

Dark green to grey, massive, hard, fine grained mafic mylonite was exposed in the southern end of the trench. It is highly chloritized and contains 10% disseminated, fine grained pyrrhotite. The northern end of the trench is underlain by light-medium grey, cryptocrystalline dolomite which weathers rusty brown. It is highly silicified (pervasive and quartz veins), carbonatized (5 mm fracture fillings of Fe-carbonate) and contains trace-5% medium grained pyrite.

SAMPLE DESCRIPTIONS AND ANALYSES:

C188-TR18-A: Mafic mylonite with 10%  
pyrrhotite.

4 ppb Au

C188-TR18-B: Dolomite, trace-5% <1 ppb Au  
goethite-limonite.

C188-TR18-C: Dolomite, much secondary 5 ppb Au  
Fe-carbonate and some medium  
grained pyrite.

**INTERPRETATION:**

No significant metallization was discovered at this site.



TRENCH: C188-TR 19

LOCATION:

Line: 12+50S Station: 27+00W (Northern Grid)

TOPOGRAPHY:

Hummocky; trench excavated down the side of a hummock.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 1

1: volcanics, intermediate to mafic flows.

REASON FOR TRENCHING:

To locate quartz vein from which a copper rich boulder was derived.

RESULTS OF TRENCHING:

A 60 cm wide chalcopyrite bearing quartz vein was located under the road. It is oriented at 017°T/90 and is in mafic volcanics. Shear zones up to 2 m wide are also present in the trench. Anomalous gold (304 ppb) was found in the quartz vein; although visible chalcopyrite was present, the analysis showed only 64 ppm Cu. Anomalous copper (204 ppm) and silver (0.6 ppm) were discovered in the wall rock to the east.

SURFICIAL GEOLOGY:

0.1 - 2.5 m medium brown, hard compact, very silty, fine sandy till with few pebbles. The upper 30 cm is loose.

BEDROCK GEOLOGY:

Dark green, fine grained, mafic volcanic flow composed of 60% plagioclase and 40% mafic minerals. It is highly chloritized, slightly carbonatized, and contains trace of pyrite in 3-5 mm clots and trace-1% magnetite. The volcanics are cut by several 1.5 - 2.0 m shear zones at several orientations. A quartz vein 60 cm wide occupies one of these shear zones; the wall rock is highly sheared, sericitized, and silicified and slightly carbonatized. Chalcopyrite was identified in the quartz vein; pyrite occurs in the vein and in the wall rock.

SAMPLE DESCRIPTIONS AND ANALYSES:

CI88-TR19-A:	Mafic volcanic, trace pyrite.	2 ppb Au
CI88-TR19-B:	Shear zone material (rotten rock, mainly chlorite).	13 ppb Au
CI88-TR19-C:	Mafic volcanic, similar to A.	4 ppb Au
CI88-TR19-D:	Mafic volcanic, highly fractured; no pyrite but contains some 1 mm quartz stringers.	7 ppb Au
CI88-TR19-E:	30 cm wide, sheared wall rock of vein rich in sericite and goethite-limonite.	8 ppb Au
CI88-TR19-F:	Quartz vein containing chalcopyrite.	304 ppb Au
CI88-TR19-G:	20 cm wide wall rock similar to E but also carbonatized.	12 ppb Au
CI88-TR19-H:	Silicified wall rock, 1 m from vein; mafic volcanic with 5% pyrite.	4 ppb Au
CI88-TR19-I:	Less altered volcanic; some 5x10 mm lenses of goethite-limonite.	3 ppb Au

**INTERPRETATION:**

The source of the boulder that was originally sampled has been found. This vein with its adjacent wall rock contains up to 304 ppb Au, 3960 ppm Cu, and 1.6 ppm Ag. It is also anomalous in As (16 ppm), Sb (18.7 ppm) and W (11 ppm). This area warrants further prospecting to identify if more extensive vein systems are present. Note that the shear zone (sample B) also contained anomalous gold. This shear zone is at right angles to the quartz vein and does not appear to be silicified. If quartz veins are associated with this direction of shearing, they may also be enriched in metals.

TRENCH: C188-TR 20

LOCATION:

Line: 07+905 Station: 41+30W (northern grid)

TOPOGRAPHY:

Gentle west facing slope.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 11a, 1?

11a: Interbedded iron-formation and greywacke

1?: Mafic volcanic flows.

REASON FOR TRENCHING:

To confirm geology of outcrops and to determine extent of iron-formation unit.

RESULTS OF TRENCHING:

Mafic volcanic flows in the east end of the trench are in conformable contact with iron-formations and interbedded greywacke units to the west. Anomalous gold (99 ppb) was found in the iron-formation. The other units did not contain appreciable quantities of metals.

SURFICIAL GEOLOGY:

Very sandy, silty, brown, hard, compact till. 0.5 - 1.5 m thick.

BEDROCK GEOLOGY:

Medium grained, mafic volcanic flows composed of 60% plagioclase, 35% mafic minerals, and 5% medium grained pyrite underlie the eastern end of the trench. These rocks are cut by 2 - 10 cm wide zones of quartz-calcite veins and lenses containing 4 mm blebs of pyrite. These veins have weathered to gossans. The volcanics are in conformable contact with a greywacke bed which is highly silicified and contains 1-4 mm seams of pyrite. The greywacke is in turn in contact with black, fine grained, well banded iron-formation with up to 20% pyrite. The general bedding is at 113°T/90.

SAMPLE DESCRIPTIONS AND ANALYSES:

CI88-TR20-A:	Gossan zone.	3 ppb Au
CI88-TR20-B:	volcanic flow; 5-10% pyrite.	4 ppb Au
CI88-TR20-C:	Greywacke, highly silicified, seams of pyrite.	2 ppb Au
CI88-TR20-D:	Iron-formation containing 20% pyrite.	99 ppb Au

**INTERPRETATION:**

Anomalous gold was confirmed as being present in the iron-formations. Other metals were not detected at significant levels. Moreover the rocks adjacent to the iron-formations did not contain anomalous quantities of metals. Further prospecting along strike within the iron-formation may reveal the presence of vein systems where the metals have been concentrated.

TRENCH: C188-TR 21

LOCATION:

Line: 11+00S Station: 40+00W (northern grid)

TOPOGRAPHY:

Gentle west facing slope.

VEGETATION:

Mixed hardwoods, select cut.

REGIONAL GEOLOGY:

Unit: 11a

11a: Interbedded iron-formation and greywacke

REASON FOR TRENCHING:

To confirm geology of outcrops and to investigate silica injection zone identified during reconnaissance mapping.

RESULTS OF TRENCHING:

Silicified iron-formation, containing up to 40% pyrite was exposed. Anomalous silver was found in a quartz vein (0.3 ppm) and the adjacent iron-formation (0.5 ppm). No other significant metallization was revealed.

SURFICIAL GEOLOGY:

0.2 - 0.4 m very silty, sticky till; loose, oxydized, abundant angular pebbles of local rock.

BEDROCK GEOLOGY:

Black, fine grained, well banded (0.1 - 20.0 cm thick) iron-formation with up to 40% massive pyrite was exposed. Massive pyrite occurs in 3-6 mm bands parrallel to bedding, on seams and as fracture fillings. Silicification is most pronounced near the road but rapidly decreases away from the road.

SAMPLE DESCRIPTIONS AND ANALYSES:

C188-TR21-A:	3 cm wide quartz vein containing 5% pyrite.	2 ppb Au
C188-TR21-B:	Iron-formation with 40% seams of pyrite.	3 ppb Au
C188-TR21-C:	Iron-formation with 20% massive,	2 ppb Au

fine grained pyrite as blebs and masses on fractures.

CI88-TR21-D: Iron-formation with 40% pyrite; 4 ppb Au  
pervasive silicification.

CI88-TR21-E: Iron-formation, 0 - 40% pyrite 4 ppb Au  
depending on individual beds.

**INTERPRETATION:**

Anomalous silver is present in the quartz vein (sample A - 0.3 ppm) and in the adjacent iron-formation (sample B - 0.5 ppm). Samples previously obtained by surface prospecting revealed similar results. No further work is warranted on this quartz injection zone.

TRENCH: C188-TR 22

LOCATION:

Line: 07+50W Station: 04+65N

TOPOGRAPHY:

Flat; at side of swamp to north.

VEGETATION:

Mixed hardwoods, select cut. (wood piling area).

REGIONAL GEOLOGY:

Unit: 11a

11a: Interbedded iron-formation and greywacke

REASON FOR TRENCHING:

To confirm geology of outcrops. Anomalous Au in -250 mesh fraction of till to the east at L7W 5+00N, and to the southeast at LBW 4+00N.

RESULTS OF TRENCHING:

Silicified iron-formation, containing up to 20% pyrite was exposed. Variable silicification and intensity of weathering throughout the trench. Water flooded the lowest parts of the trench. Anomalous silver is present in samples of iron-formation with high pyrite contents. No other significant metallization was discovered by this trench.

SURFICIAL GEOLOGY:

0.3 - 0.6 m brown, very silty, clayey, compact, moderately hard till with some sand and pebbles.

BEDROCK GEOLOGY:

Black, fine grained, well banded iron-formation with up to 20% massive pyrite in lenses and fracture fillings was exposed. Rock is generally highly sericitized, and silicified; it is quite rotten (soft).

SAMPLE DESCRIPTIONS AND ANALYSES:

C188-TR22-A:	Chip sample of iron-formation over 0.5 m width.	3 ppb Au
C188-TR22-B:	Iron-formation with 20% pyrite in lenses.	2 ppb Au

- C188-TR22-C: Rotten iron-formation; highly sericitized. 3 ppb Au
- C188-TR22-D: Iron-formation with moderate-high pervasive silicification. 2 ppb Au
- C188-TR22-E: Iron-formation with 20% pyrite as seams and fracture coatings. 5 ppb Au

INTERPRETATION:

Anomalous silver is present in samples B (0.4 ppm) and E (0.3 ppm); these samples are characterized by high sulphide contents. No other significant metallization was identified.



APPENDIX IV  
CERTIFICATES

CERTIFICATE

I, Roger D. Thomas, of the city of Ottawa, Province of Ontario certify that:

1. I reside at 1373 Corkery Road, RR 2, Carp Ontario, KOA 1L0.
2. I have worked as a geologist for the last 20 years.
3. I worked for the Geological Survey of Canada for five years and have worked for Terrain Analysis and Mapping Services for the last 8 years.
4. I am a graduate of McGill University with a B.Sc. and M.Sc., both in geology.
5. I am a Professional Engineer of Ontario.
6. I am a Fellow of the Geological Association of Canada.
7. I was responsible for the bedrock geological mapping, trenching and the writing of this report.

Dated at Carp, Ontario

This 30<sup>th</sup> day of December, 1988

*Roger D Thomas*  
Roger D. Thomas





DOCUM W89



31F02NE9621 2.12148 DARLING

(W8902-8)

Mining Act

Do not use shaded areas below.

Type of Survey(s) **BEDROCK GEOLOGY 2.12148** Township or Area **DARLING M-80**

Claim Holder(s) **KINBAURI GOLD CORP.** Prospector's Licence No. **71931**

Address **Box 158, Carp, Ontario KOA 1L0**

Supply Company **Terrain Analysis + Mapping Services Ltd** Date of Survey (from & to) **9 9 88 25 11 88** Total Miles of line cut **N/A**

Name and Address of Author (of Geo-Technical report) **R.D. Thomas, 70 Terrain Analysis, Box 158, Carp, Ont. KOA 1L0**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
	Geophysical 1989	
	Electromagnetic	
	Radiometric	
	Other	
	Geological	23.3
	Geochemical	
Arborne Credits		
Note: Special provisions do not apply to Arborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
EO	<del>838670</del>		SO	1067343	
	<del>838671</del>			1067344	
	<del>838672</del>			1067351	
	<del>838673</del>				
	<del>838674</del>				
	<del>838680</del>				
	<del>838681</del>				
	921217				
	921221				
	921222				
	921223				
	921224				

RECEIVED

MINING LANDS SECTION

349.5

23.3

ONTARIO GEOLOGICAL SURVEY  
ASSESSMENT FILES OFFICE  
FEB 13 1989  
RECEIVED

SOUTHERN ONTARIO MINING DIV.  
RECEIVED  
JAN 17 1989  
AM 7,8,9,10,11,12,13,14,16 PM

Expenditures (excludes power stripping)

Type of Work Performed

Performance on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures **S** ÷ **15** =  Total Days Credits

Total number of mining claims covered by this report of work. **8**

Instruct on Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date **Jan 9/89** Recorder Holder or Agent (Signature) **[Signature]**

Certification Verifying Report of Work **V. R. HAMPTON**

For Office Use Only

Total Days Cr. Date Recorded **186.4 Jan. 17 1989**

Ministry Rec'd **[Signature]**

Approved as Recorded **[Signature]**

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying **[Signature]**

## Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey <i>Bedrock Geology</i>												
Technical Days	x	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	÷	No. of Claims	=	Days per Claim
<input type="text" value="49.94"/>		<input type="text" value="7"/>		<input type="text" value="349.5"/>		<input type="text"/>		<input type="text" value="349.5"/>		<input type="text" value="15"/>		<input type="text" value="23.3"/>

Type of Survey												
Technical Days	x	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	÷	No. of Claims	=	Days per Claim
<input type="text"/>		<input type="text" value="7"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>

Type of Survey												
Technical Days	x	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	÷	No. of Claims	=	Days per Claim
<input type="text"/>		<input type="text" value="7"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>

Type of Survey												
Technical Days	x	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	÷	No. of Claims	=	Days per Claim
<input type="text"/>		<input type="text" value="7"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>

<u>FIELD</u>		<u>HRS.</u>
SEPT. + OCT.	RAMPTON	2.5
	THOMAS	107
	PARADIS	66.5
NOV.	RAMPTON	9
	THOMAS	133.5
	PARADIS	10
	GLEESON	10

<u>REPORT</u>		<u>HRS.</u>
DEC.	RAMPTON	2
	THOMAS	57
		399.5 HRS.

$$\frac{399.5}{8} = 49.94 \text{ days.}$$



Ministry of Northern Development and Mines

Report of Work (Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT No. W3000-13

Instructions: - Please type or print. - If number of mining claims traversed exceeds space on this form, attach a list. - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns. - Do not use shaded areas below.

Mining Act 2.12148

Type of Survey(s) EXPENDITURES (GEOCHEMISTRY OF BEDROCK SAMPLES) Township or Area DARLING M-80

Claim Holder(s) KINBAURI GOLD CORP. Prospector's Licence No. 71931

Address 302-16 CREDIT UNION WAY, NEPEAN, ONT. K2H 8R6

Survey Company Terrain Analysis + Mapping Services Ltd. Date of Survey (from & to) 9/25/88 to 11/8/88 Total Miles of line Cut N/A

Name and Address of Author (of Geo-Technical report) R.D. Thomas, c/o Terrain Analysis + Mapping Services Ltd., Box 158, Carp, Ont. K0A 1L0

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Other	
	Geological	
	Geochemical	

Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	- Electromagnetic	
	- Magnetometer	
	- Radiometric	

RECEIVED  
FEB 15 1989  
MINING LANDS SECTION

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim Number	Expend. Days Cr.
EO	838673	15.8		WORK ASSIGNMENT	
	838679	40		EO 838670	
	838680	40		4,000 - 6.3 = 3,993.7	
	838681	40		EO 838671	
				3,987.7 - 6.3 = 3,981.4	
				EO 838672	
				3,998.7 - 6.3 = 3,992.4	
				EO 921221	
	838670	23.3		3,978 - 17.14 = 3,960.86	
				EO 921217, 501067343	
	838671	23.3		50 1647352	
	838672	23.3		4,000 - 17.14 = 3,982.86	
				EO 1067344	
				3,987 - 17.14 = 3,969.86	

RECEIVED  
GEOLOGICAL SURVEY  
ASSESSMENT FILES  
OFFICE  
MAY - 2 1989

RECEIVED  
SOUTHERN ONTARIO MINING DIV.  
FEB 15 1989

Expenditures (excludes power stripping)

Type of Work Performed Geochemical Analysis of Bedrock Samples

Performed on Claim(s) EO 838670, 838671, 838672, 838673, 838679, 838680, 838681, 921221, 921217, 501067343, 1067344, 1067352

Calculation of Expenditure Days Credits

Total Expenditures \$ 3086.31 ÷ Total Days Credits 15 = 205.7

Total number of mining claims covered by this report of work. 7

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded 205.7 Date Recorded Feb 10 1989 Mining Recorder [Signature]

Date Approved as Recorded 27 April 1989 Branch Director [Signature]

Date Feb. 3/89 Recorder/Holder or Agent (Signature) [Signature]

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying R.D. Thomas, c/o Terrain Analysis + Mapping Services Ltd., Box 158, Carp, Ont. K0A 1L0

Date Certified Feb. 3/89 Certified by (Signature) Roger D. Thomas



File \_\_\_\_\_

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) BEDROCK GEOLOGY
Township or Area DARLING SO
Claim Holder(s) KINBAURI GOLD CORP.
Survey Company TERRAIN ANALYSIS + MAPPING SERVICES
Author of Report R.D. THOMAS
Address of Author BOX 158, CARP, ONT K0A 1L0
Covering Dates of Survey SEPT. 9 - NOV. 25 / 88
Total Miles of Line Cut N/A

MINING CLAIMS TRAVERSED
List numerically
EO 838670
838671
838672
838673
838679
838680
838681
921217
921221
921222
921223
921224
SO 1067343
1067344
1067351
TOTAL CLAIMS 15

SPECIAL PROVISIONS CREDITS REQUESTED
DAYS per claim
Geophysical
-Electromagnetic
-Magnetometer
-Radiometric
-Other
Geological
Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_
(enter days per claim)

DATE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_
Author of Report or Agent

Res. Geol. \_\_\_\_\_ Qualifications 2.7977

Previous Surveys
Table with columns: File No., Type, Date, Claim Holder

If space insufficient, attach list

OFFICE USE ONLY

**GEOPHYSICAL TECHNICAL DATA**

GROUND SURVEYS -- If more than one survey, specify data for each type of survey



Number of Stations \_\_\_\_\_ Number of Readings \_\_\_\_\_

Station interval \_\_\_\_\_ Line spacing \_\_\_\_\_

Profile scale \_\_\_\_\_

Contour interval \_\_\_\_\_

**MAGNETIC**

Instrument \_\_\_\_\_

Accuracy – Scale constant \_\_\_\_\_

Diurnal correction method \_\_\_\_\_

Base Station check-in interval (hours) \_\_\_\_\_

Base Station location and value \_\_\_\_\_

**ELECTROMAGNETIC**

Instrument \_\_\_\_\_

Coil configuration \_\_\_\_\_

Coil separation \_\_\_\_\_

Accuracy \_\_\_\_\_

Method:  Fixed transmitter  Shoot back  In line  Parallel line

Frequency \_\_\_\_\_

(specify V.L.F. station)

Parameters measured \_\_\_\_\_

**GRAVITY**

Instrument \_\_\_\_\_

Scale constant \_\_\_\_\_

Corrections made \_\_\_\_\_

Base station value and location \_\_\_\_\_

Elevation accuracy \_\_\_\_\_

**INDUCED POLARIZATION  
RESISTIVITY**

Instrument \_\_\_\_\_

Method  Time Domain  Frequency Domain

Parameters – On time \_\_\_\_\_ Frequency \_\_\_\_\_

– Off time \_\_\_\_\_ Range \_\_\_\_\_

– Delay time \_\_\_\_\_

– Integration time \_\_\_\_\_

Power \_\_\_\_\_

Electrode array \_\_\_\_\_

Electrode spacing \_\_\_\_\_

Type of electrode \_\_\_\_\_

THE TOWNSHIP OF  
OF  
**DARLING**  
COUNTY OF  
LANARK  
SOUTHERN ONTARIO  
MINING DIVISION  
SCALE: 1-INCH=40 CHAINS

DISPOSITION OF CROWN LANDS

- PATENT, SURFACE AND MINING RIGHTS
- " SURFACE RIGHTS ONLY
- " MINING RIGHTS ONLY
- LEASE, SURFACE AND MINING RIGHTS
- " SURFACE RIGHTS ONLY
- " MINING RIGHTS ONLY
- LICENCE OF OCCUPATION
- KINGS HIGHWAY
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- ROADS
- IMPROVED ROADS
- TRAILS

NOTES

This Map Is Not To Be Used  
FOR SURVEY PURPOSES.

LOT AND CONCESSION LINES SHOWN HEREON  
ARE PROJECTED FROM THE BEST INFORMATION  
AVAILABLE. BUT THEIR TRUE POSITION IS NOT  
GUARANTEED FOR OFFICIAL SURVEY PURPOSES  
CONSULT THE ORIGINAL SURVEY PLANS AND  
FIELDNOTES OF RECORD IN THE MINISTRY  
OF NATURAL RESOURCES

400' Surface Rights Reservation along the  
shores of all lakes and rivers.

RESERVES

- Surface rights withdrawn, File. 30640
- M.N.R. Reserve, File. 55603

SAND and GRAVEL

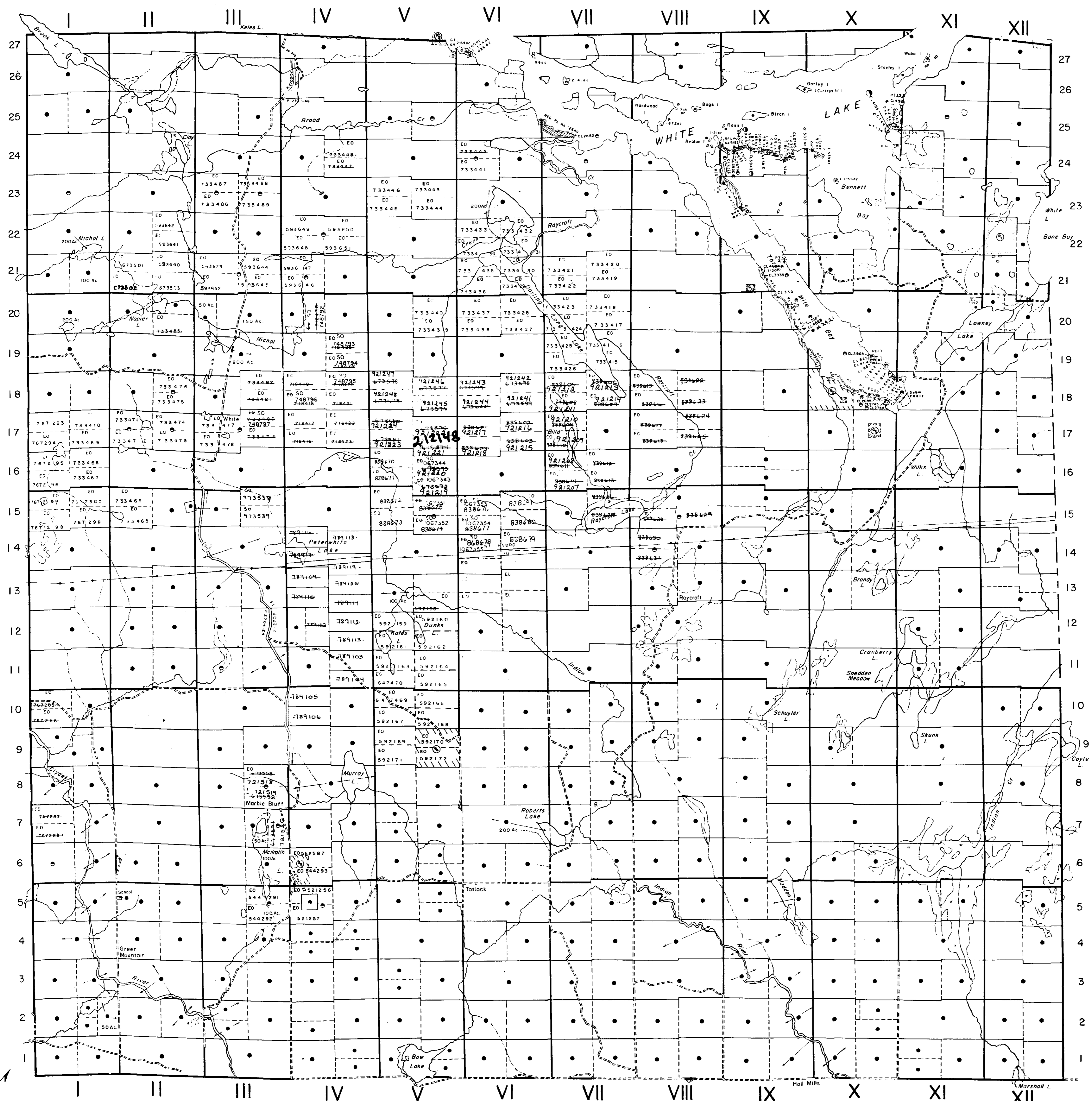
- Gravel, File 33201 v.2
- " " 113675
- Quarry permit
- Marble File 30165
- " " 17924

DATE OF ISSUE

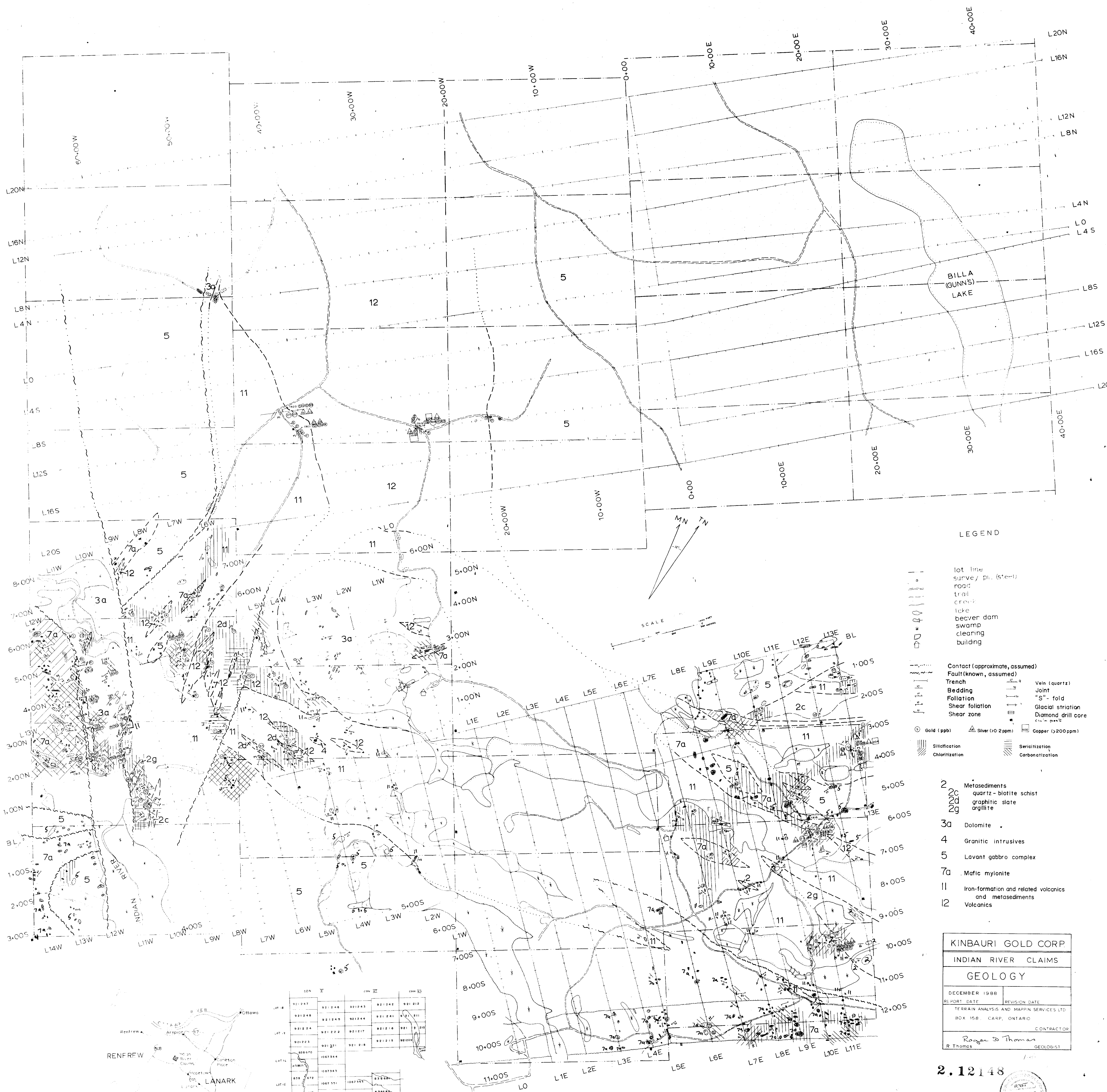
NOV 2, 1961  
SOUTHERN ONTARIO  
MINING DIVISION

PLAN NO.—M. 80

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH







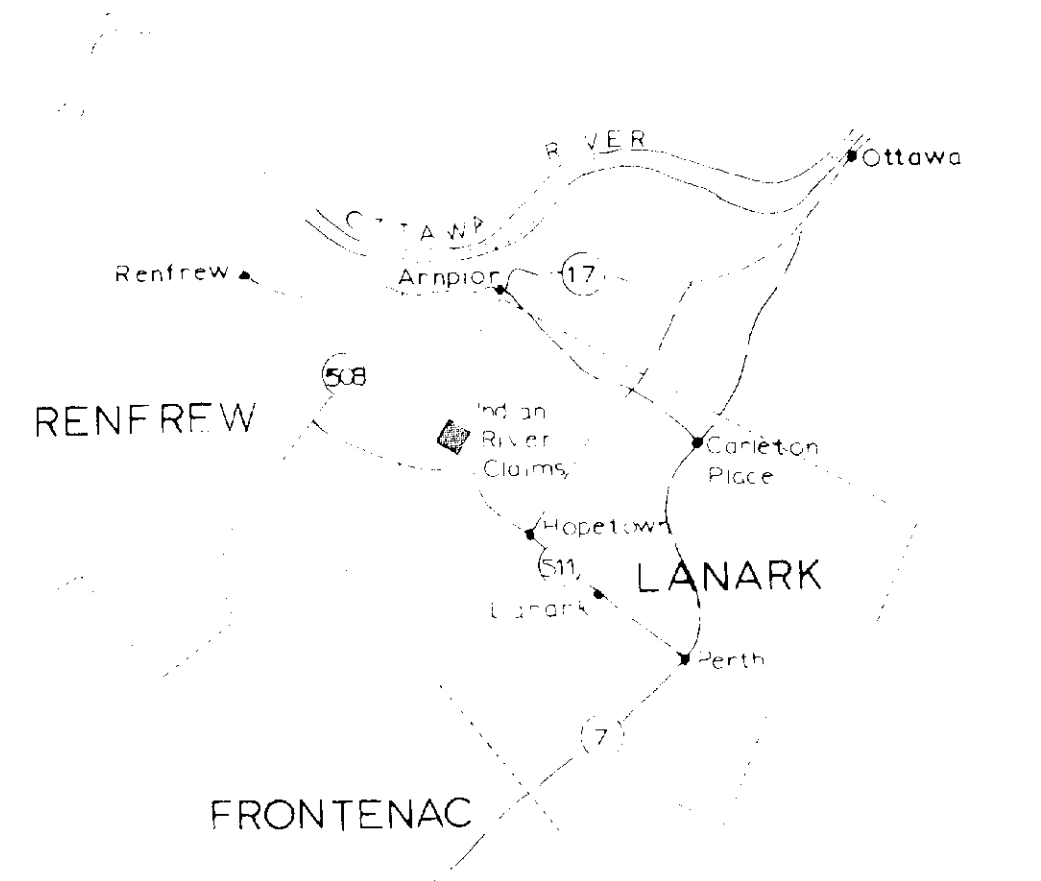
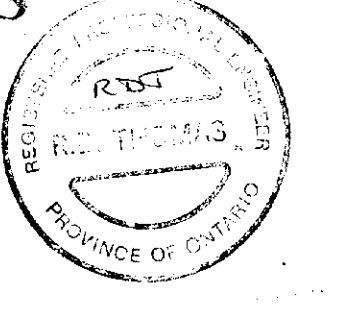
LEGEND

- lot line
  - survey pl. (5'±)
  - road
  - trail
  - crest
  - lake
  - beaver dam
  - swamp
  - clearing
  - building
- 
- Contact (approximate, assumed)
  - Fault (known, assumed)
  - Trench
  - Bedding
  - Foliation
  - Shear foliation
  - Shear zone
  - Vein (quartz)
  - Joint
  - "S"-fold
  - Glacial striation
  - Diamond drill core

- Gold (ppb)
  - Silver (>0.2ppm)
  - Copper (>200ppm)
  - Silicification
  - Chloritization
  - Serialization
  - Carbonatization
- 
- 2 Metasediments
  - 2c quartz - biotite schist
  - 2d graphitic slate
  - 2g argillite
  - 3a Dolomite
  - 4 Granitic intrusives
  - 5 Lavant gabbro complex
  - 7a Mafic mylonite
  - 11 Iron-formation and related volcanics and metasediments
  - 12 Volcanics

KINBAURI GOLD CORP.	
INDIAN RIVER CLAIMS	
GEOLOGY	
DECEMBER 1988	REVISION DATE
TERRAIN ANALYSIS AND MAPPING SERVICES LTD.	
BOX 158, CARP, ONTARIO	
CONTRACTOR	
R. Thomas	
GEOLOGIST	

2.12148



Lot #	10N	11N	12N	13N	14N
LOT 8	921247	921248	921249	921250	921251
LOT 9	921252	921253	921254	921255	921256
LOT 10	921257	921258	921259	921260	921261
LOT 11	921262	921263	921264	921265	921266
LOT 12	921267	921268	921269	921270	921271
LOT 13	921272	921273	921274	921275	921276
LOT 14	921277	921278	921279	921280	921281
LOT 15	921282	921283	921284	921285	921286
LOT 16	921287	921288	921289	921290	921291
LOT 17	921292	921293	921294	921295	921296
LOT 18	921297	921298	921299	921300	921301