MCMINNS BLUFF AREA EL 4764

FINAL REPORT

FOR

ROSEQUARTZ MINING NL

ROSEQUARTZ MINING NL
SEPTEMBER 1989

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MAPS

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1. DESCRIPTION OF AREA

Exploration Licence 4764 consists of 7 one minute blocks (area about 23 square kilometres). It is situated some 20 kilometres northwest of the Pine Creek township.

Mineral Claims are all in the same area, in fact, 35 Claims are coincident with about 6 square kilometres of the Exploration Licence. Another 12 Claims are to the west and contiguous with the Exploration Licence and with the other Claims.

The Stuart Highway crosses the area with a gravel road connecting it, through the Minerals Claims, to the Union Reefs gold mineralisation. Using these roads most places in the Claims area are readily accessible by either conventional or 4 wheel drive vehicle.

2. GEOLOGY OF THE AREA

1. General

The area is centrally located within the Pine Creek Geosyncline. This Geosyncline is becoming a major producer of minerals, with large deposits being mined in ever increasing quantities. Some 16 metals have been extracted since 1865.

The Geosyncline is made up of Early Proterozoic sediments and tuffs, mainly draped over Archaean rocks, and intruded by Carpentarian Granites and Dolerite.

Many gold occurrences are clustered around the Cullen batholith in the centre of the Geosyncline.

2. Detailed Geology

The area under consideration is within an embayment of Early Proterozoic sediments and tuffs within the Cullen Batholith. Some of the area actually overlaps granitic rocks of this Batholith. Some of the area actually overlaps granitic rocks of this Batholith. The sediments are shales and fine to medium grained greywackes which have been assigned to the Burrell Creek Formation.

This Formation is host to economic gold mineralisation such as the nearby Union Reefs occurrence to the east and the Pine Creek ore body to the south.

Structurally, the area has fairly tight folding with axes parallel to the margins of the embayment with frequent changes in plunge.

3. UNION REEFS MINERALISATION

The type of gold deposit at Union Reefs is coincident with a gold mineralisation model which has been described as:

"Auriferous veins, lodes, sheeted zones and saddle reefs in faults, fractures, bedding plane discontinuities and shears, drag folds, crushed zones and openings on anticlines essentially in sedimentary terrains".

This type of deposit is widespread throughout the world and has produced large quantities of gold. Two examples of such mineralisation are shown on appendices 2 and 3.

Union Reefs is a very good example of this type of mineralisation, with shearing offsetting and saddle reefs in a direction sub-parallel to the fold axes.

The Pine Creek ore body is also of the same type and is expected to produce some 2/3 million ounces of gold.

4. HARDROCK EXPLORATION COMPLETED

During the first year, all outcropping quartz veins and host rocks in the northern and northeastern part of the area were sampled and assayed for gold. The results of this work were low both for gold and arsenic.

This was unexpected because the soil/eluvium/alluvium overlying and seemingly shedding from these rocks contains appreciable gold. This aspect of the "soft rocks" will be dealt with later.

Some samples were also taken in the southern portion of the area. Two of these gave results which could be considered anomalous.

The highest result of 0.62 g/t Au was followed up but could not be repeated. The possible reason for this will also be discussed later under the heading "Soft Rock Exploration".

The other anomalous result of 0.11 g/t Au was from a large quartz vein. This vein is in the vicinity of the expected extension of the anticline which has presently been established.

During the second year an extensive quartz vein system was sampled without success.

To the south of this, (in a very poor outcrop area), detailed mapping showed the presence of an anticline. Sampling of available outcrop did not give any positive gold assays. For full details of this work, see Map 4.

However, it should be pointed out that there is no outcrop in the immediate vicinity of the anticlinal axis.

5. SOFT ROCK EXPLORATION

This exploration has been carried out by J.H. Niddrie who first recognised gold in the soft rock.

As has been described in the first Annual Report, extensive exploration for gold in soft rock has been carried out.

This work has resulted in a minimum volume of 1 million cubic metres of gold bearing material being outlined.

Ten pits were then dug in the area to produce about 100 kilogrammes of material to test for suitability for concentration by gravity methods. The result of this work is appended.

Once comment should be made about this work in regard to the concentrate. One assay of this material which varied from 3.65 kilogrammes to 8.24 kilogrammes in weight was made and the result of this was used to give the calculated head grade.

This is probably unreliable because the gold would not be evenly distributed throughout such large volume of concentrate. Thus an assay of 50 grammes of material would not necessarily reflect the total gold content of a 3650 or a 8240 gramme sample.

However, the main aim of the work was to determine whether the gold int he soft rock material was amenable to concentration by gravity methods. For the higher grade material it was shown that gravity methods are quite effective.

My opinion on the soft rock material is that it may derive from an old land surface which is apparent in the Pine Creek area, and seems to be characterised by the presence of hematite (or goethite?) in the form of rounded pebbles.

If this old land surface is in fact present, then the gold in the soft rock content will be derived from either or both of the underlying hard rock and or the old land surface.

Because of this, any exploration of the hard rock based on sampling and assaying of colluvium could be unreliable.

6. TOTAL EXPENDITURE OF EL 4764

GEOLOGICAL AND TOPOGRAPHICAL MAPPING	$ 8,277.00
ASSISTANTS	$ 4,810.00
VEHICLES	$ 3,673.00
SAMPLING	$ 1,223.00
ALLUVIAL/ELUVIAL SURVEYING	$ 3,580.00
ALLUVIAL/ELUVIAL SAMPLING AND PANNING	$ 4,273.00
SURVEY PEGS, FLAGGING, SAMPLE BAGS ETC	$ 2,486.00
UNBOGGING VEHICLES	$ 827.30
CAMPING ACCOMMODATION, MEALS	$ 2,738.00
ALLUVIAL/ELUVIAL TEST PITTING	$10,200.00
ALLUVIAL/ELUVIAL GRAVITY TESTWORK	$ 4,500.00
REPORTING	$ 500.00
	$47,087.30

APPENDIX 1

NORMET PTY LTD

Complete Metallurgy Services for Miners

MCMINNS BLUFF AREA
EL 4764 MCNo 2472 to 2518

REPORT

ON

GRAVITY TESTWORK

CONDUCTED ON

ZAPOPAN ALLUVIAL AREA SAMPLES

Client : Zapopan NL

Date : 30 August 1988

Job No : DL88/046

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INTRODUCTION

Mr Rod Johnston of Zapopan NL requested that Normet conduct preliminary gravity testwork on samples from Zapopans alluvial areas.

The aim of the testwork was to determine whether the alluvial samples were amenable to concentrating gold present by gravity methods.

PROCEDURE

Approximately 100 kg was received for each of the samples labelled 1-10 inclusive.

Each sample was dry screened at 2 mm to remove the oversized material. Both screen products were weighed and the +2 mm material was discarded. The screen undersize was assayed and the remainder passed over a laboratory Wilfley Table. Two products (concentrate and tail) were collected from each of the 10 samples. The Wilfley Table products were filtered, dried and submitted for duplicate gold fire assay.

All assays were conducted by AAL - Pine Creek, NT.

RESULTS

Tables 1 Gold balance for samples 1-10 respectively..

Table 2 -2 mm (Table Feed) assays

DISCUSSION

Results from Wilfley Table testwork (Table 1) show that samples 1, 2, 5, 6, and 10 contain gravity concentratable gold. Concentrates of these samples contained between 81.4% and 96.8% of the feed gold.

Sample No 7 produced a high concentrate grade (0.85 g/t) however a tail grade of 0.27 g/t Au reduced the gold distribution of the concentrate.

Samples 3, 4, 8, and 9 showed minimal gravity concentratable gold.

Correlation between average assay grade and calculated assay from Wilfley Table (Table 2) was good considering the alluvial nature of the sample.

Table 1

Gold Balance for Samples 1 - 10

Sample No		Wt %	Assay (g/t)	Gold Dist %
1	Tail	84.8	<0.01	6.7
	Conc	15.2	0.73	93.3
	Feed	100.0	(<0.12)	100.0
(Initial Weight, 93.6 kg, +2 mm weight 50.8 kg)				
2	Tail	78.7	<0.01	3.2
	Conc	21.3	1.14	96.8
	Feed	100.0	(<0.25)	100.0
(Initial Weight, 96.3 kg, +2 mm weight 57.6 kg)				
3	Tail	85.8	<0.01	69.2
	Conc	14.2	0.03	30.8
	Feed	100.0	(<0.01)	100.0
(Initial Weight, 104.7 kg, +2 mm weight 66.4 kg)				
4	Tail	90.7	<0.01	90.0
	Conc	9.3	0.01	10.0
	Feed	100.0	(<0.01)	100.0
(Initial Weight, 104.7 kg, +2 mm weight 65.4 kg)				
5	Tail	83.2	<0.01	18.6
	Conc	16.8	0.21	81.4
	Feed	100.0	(<0.04)	100.0
(Initial Weight, 106.1 kg, +2 mm weight 70.2 kg)				

Table 1 (continued)

Gold Balance for Samples 1 - 10

Sample No		Wt %	Assay (g/t)	Gold Dist %
6	Tail	90.2	<0.01	4.5
	Conc	9.8	1.95	95.5
	Feed	100.0	(<0.20)	100.0

(Initial Weight, 104.5 kg, +2 mm weight 64.8 kg)

Sample No		Wt %	Assay (g/t)	Gold Dist %
7	Tail	88.7	0.27	71.3
	Conc	11.3	0.85	28.7
	Feed	100.0	(0.33)	100.0

(Initial Weight, 108.7 kg, +2 mm weight 73.2 kg)

Sample No		Wt %	Assay (g/t)	Gold Dist %
8	Tail	89.5	0.04	90.0
	Conc	10.5	0.04	10.0
	Feed	100.0	(0.04)	100.0

(Initial Weight, 100.9 kg, +2 mm weight 46.6 kg)

Sample No		Wt %	Assay (g/t)	Gold Dist %
9	Tail	86.6	<0.01	90.0
	Conc	13.4	<0.01	10.0
	Feed	100.0	(<0.01)	100.0

(Initial Weight, 102.9 kg, +2 mm weight 56.2 kg)

Sample No		Wt %	Assay (g/t)	Gold Dist %
10	Tail	88.5	<0.01	5.0
	Conc	11.5	1.49	95.0
	Feed	100.0	(<0.18)	100.0

(Initial Weight, 103.7 kg, +2 mm weight 58.0 kg)

Table 2

-2 mm (Table Feed) Assays

Sample No	Assays (g/t Au	Average (g/t Au)	Calc Head* (g/t Au)
1	0.13, 0.15, 0.08, 0.10 0.03, 0.07, 0.05, 0.08	0.09	0.12
2	1.02, 0.95, 0.08, 0.07 0.42, 0.39, 0.11, 0.11	0.39	0.25
3	0.11, 0.13, 0.08, 0.06 0.05, 0.05, 0.06, 0.06	0.08	0.01
4	0.07, 0.06, 0.06, 0.07 0.06, 0.05, 0.06, 0.05	0.06	0.01
5	0.05, 0.05, 0.06, 0.05 0.07, 0.05, 0.06, 0.05	0.06	0.04
6	0.07, 0.05, 0.05, 0.04 0.18, 0.21, 0.15, 0.12	0.11	0.20
7	0.18, 0.18, 0.18, 0.14 0.16, 0.14, 0.16, 0.16	0.16	0.33
8	0.04, 0.09, 0.12, 0.12 0.12, 0.12, 0.10, 0.10	0.10	0.04
9	0.11, 0.11, 0.13, 0.10 0.08, 0.08, 0.08, 0.07	0.10	0.01
10	0.10, 0.09, 0.07, 0.04 0.08, 0.06, 0.11, 0.14	0.09	0.18

* Calculated from Wilfley Table Results

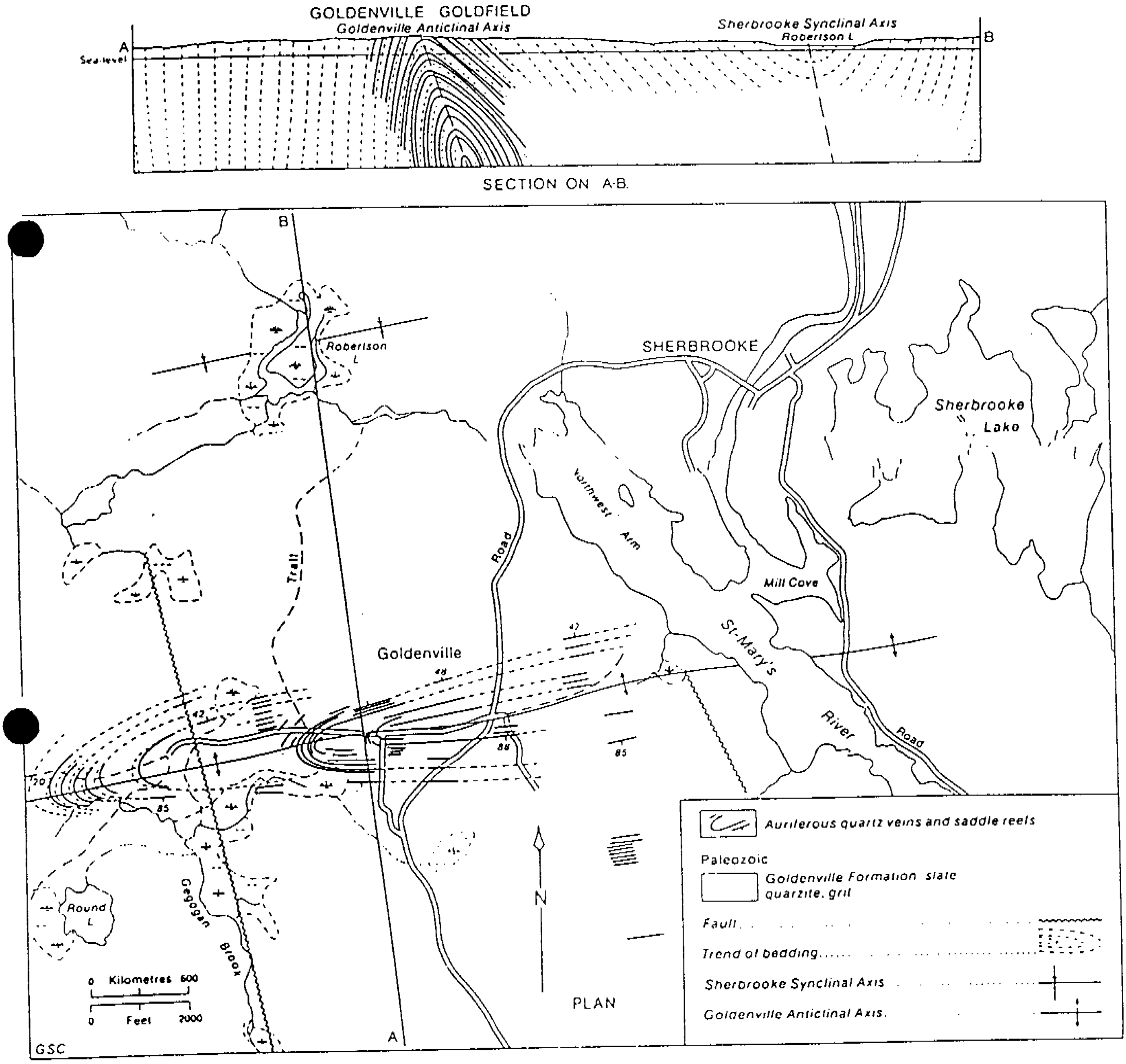


Figure 40. Generalized geological plan and section of the Goldenville gold district, Guysborough County, Nova Scotia (modified from Malcolm and Faribault, 1929)

APPENDIX 3

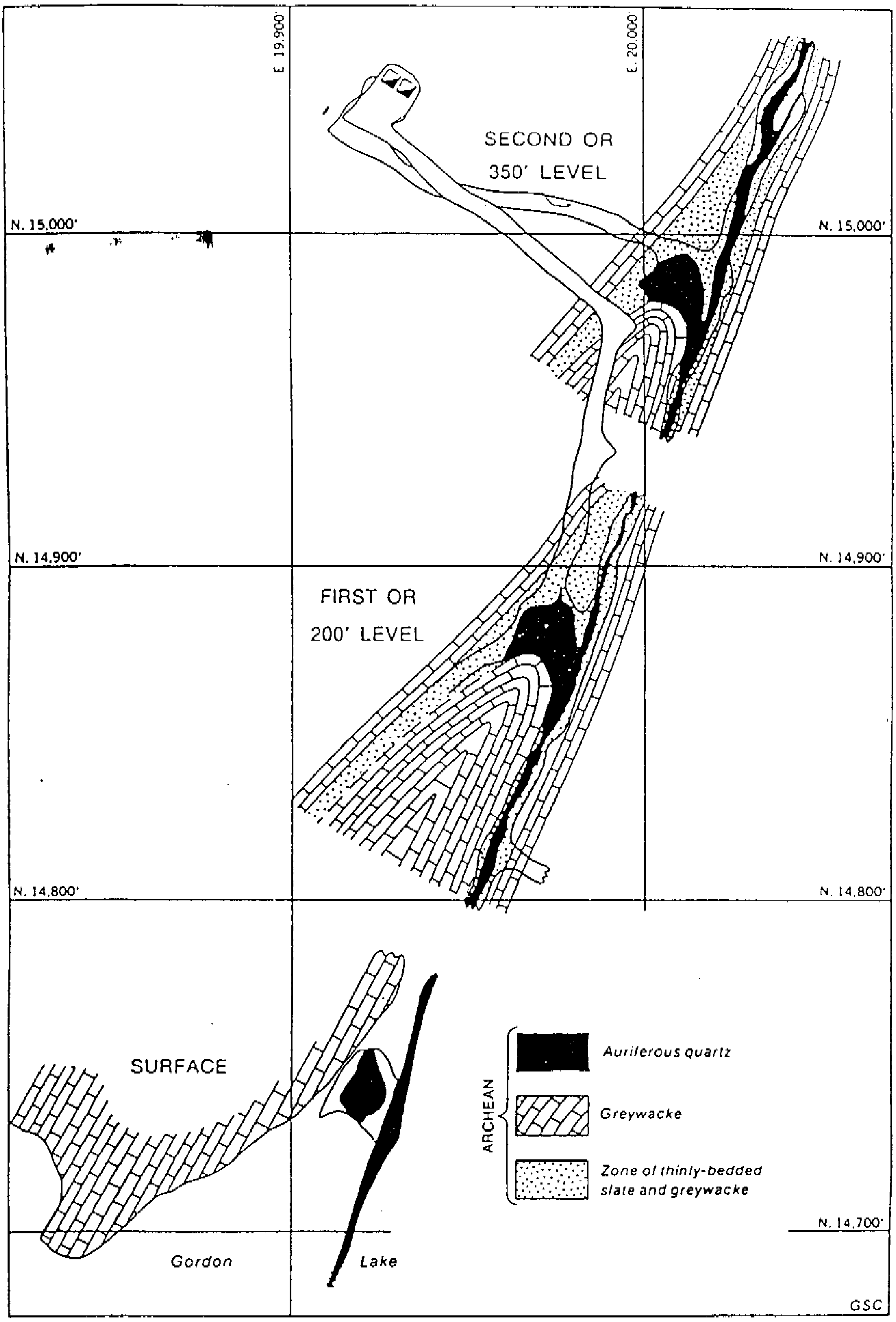
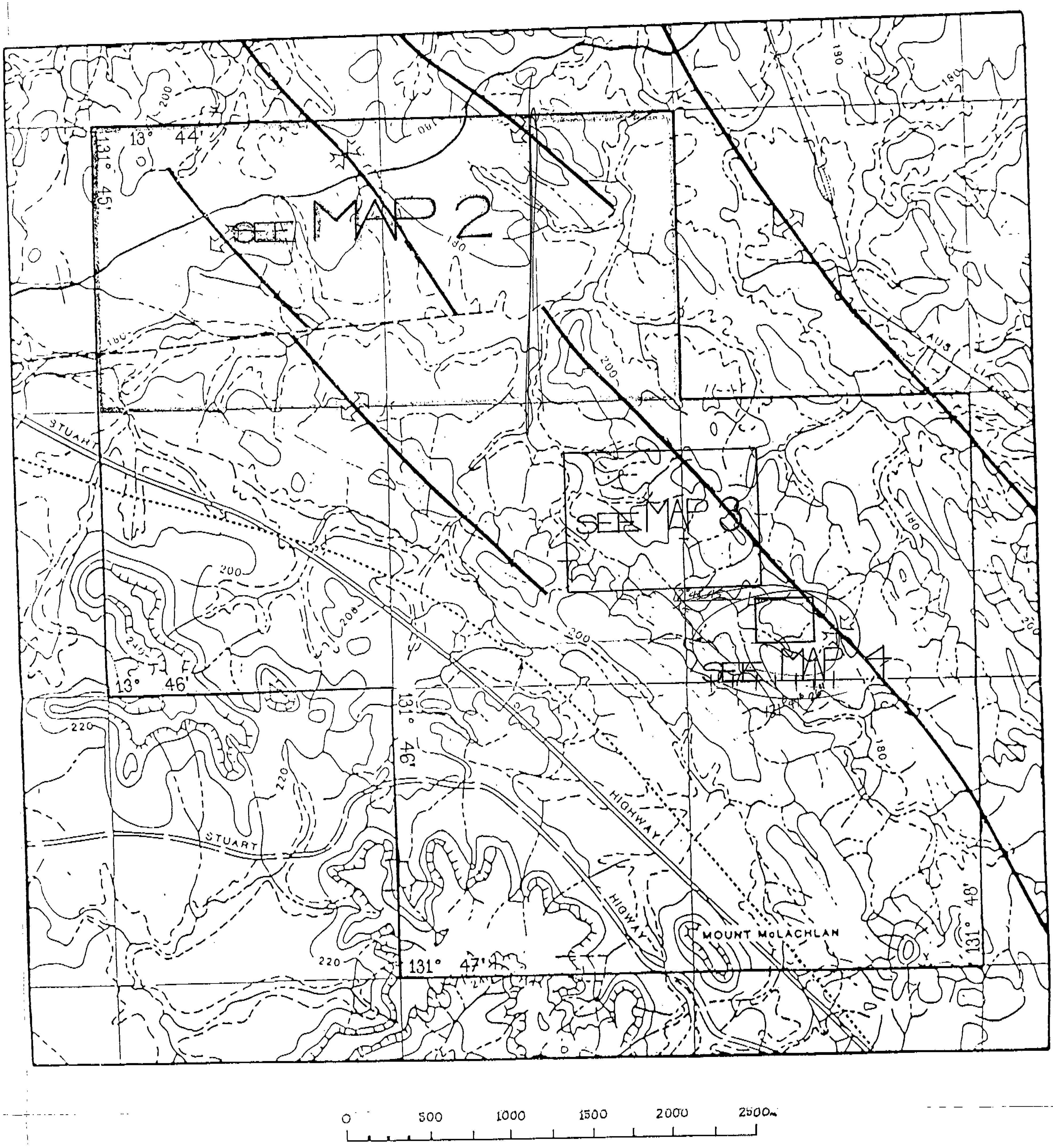


Figure 38. Plan of surface and part of underground workings, Camlaren Mine, Gordon Lake, Northwest Territories, showing geology of the Hump vein (after Henderson and Fraser, 1948).

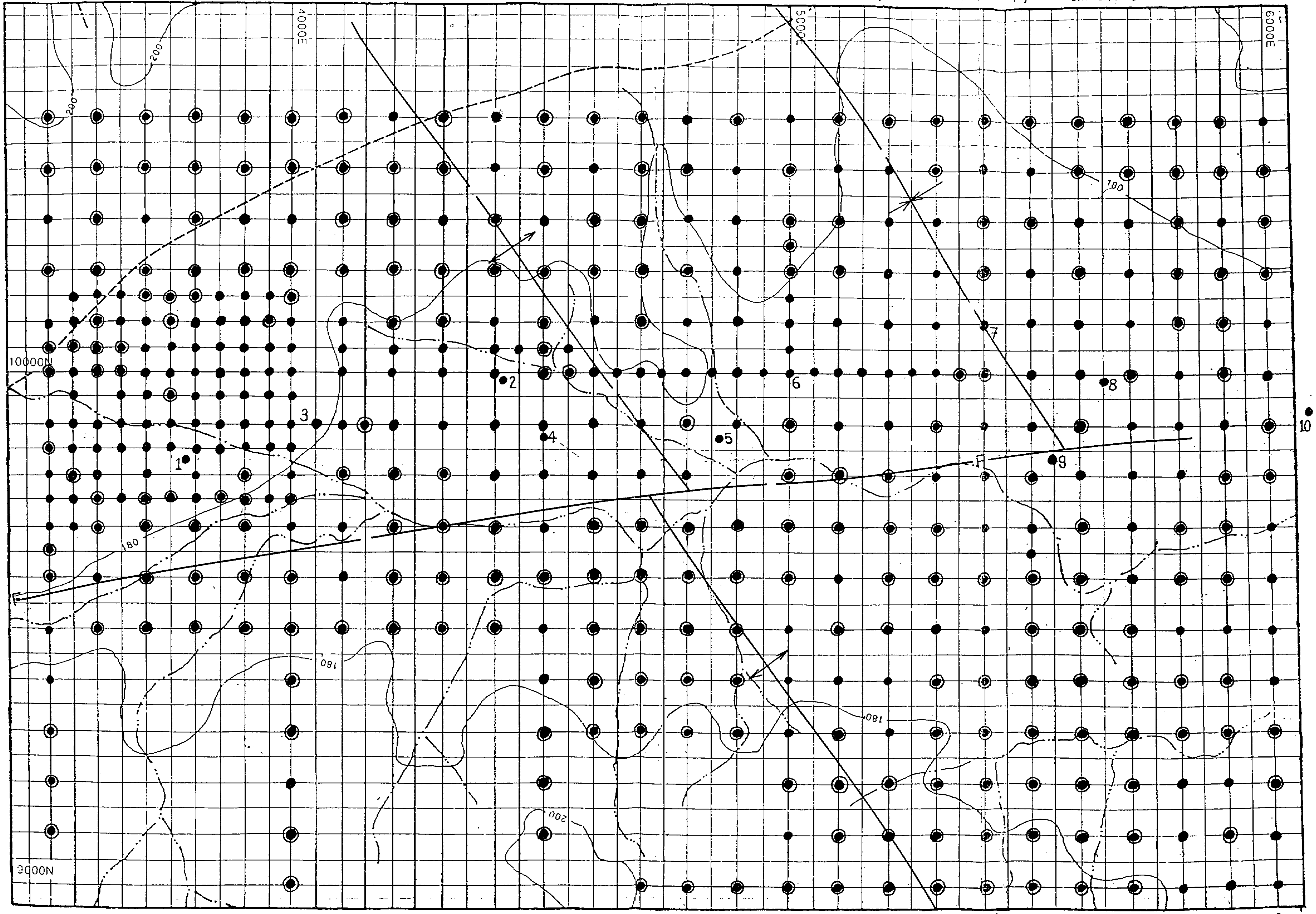


EXPLORATION LICENCE 4764

INDEX MAP

MAP 1

(FIELD PLAN ONLY) J.W. SHIELDS



• GOLD PANNED FROM HOLE ⊙ NO GOLD PANNED FROM HOLE

09 TEST PIT (SAMPLE EVALUATED BY NORMET)

MAP 2

SAMPLE NUMBER	Au	As
MMBS 5	<0.01	<100
MMBS 6	<0.01	<100
MMBS 7	<0.01	<100
MMBS 8	0.02	<100
MMBS 9	<0.01	<100
MMBS 10	<0.01	<100
MMBS 11	<0.01	<100
MMBS 12	<0.01	<100
MMBS 13	<0.01	140
MMBS 14	<0.01	<100

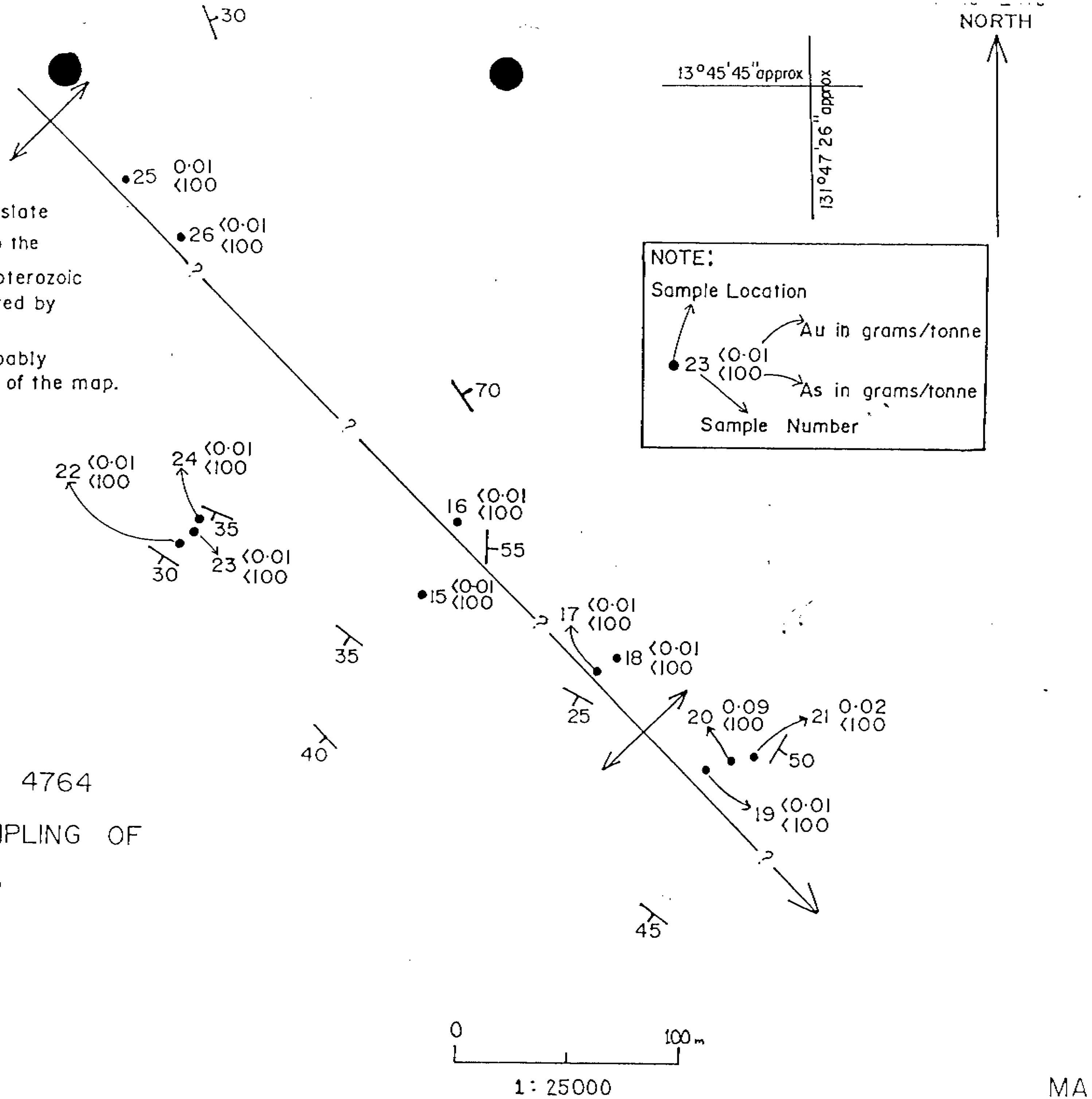
NOTE: The Bedrock in this area is made of slate and greywacke probably belonging to the Burrell Creek Formation of Early Proterozoic age. However, most of this is obscured by elluvium and alluvium.
The dips and strikes shown are probably the only reliable ones within the area of the map.
Creeks shown are approximate only.

EXPLORATION LICENCE 4764

QUARTZ VEIN SAMPLING AND ASSAYING
FOR LOCATION OF AREA SEE MAP 1

MAP 3

NOTE: The Bedrock in this area is made of slate and greywacke probably belonging to the Burrell Creek Formation of Early Proterozoic age. However, most of this is obscured by elluvium and alluvium.
The dips and strikes shown are probably the only reliable ones within the area of the map.



EXPLORATION LICENCE 4764

ANTICLINE AXIS WITH SAMPLING OF AVAILABLE OUTCROP

FOR LOCATION SEE MAP 1