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REPORT  
ON THE  
DRILLING AND PROSPECTING PROGRAM  
ON THE  
MAD CLAIM GROUP

WATSON BAR CREEK  
CLINTON MINING DIVISION  
LAT. 51 03'; LONG. 122 07'; NTS 920/1E

FOR

CANAMIN RESOURCES LTD.

AND

SOUTHERN GOLD RESOURCES LTD.

By

FILED

T.E. Lisle and Associates Ltd.  
T.E. Lisle, P.Eng.

June 30, 1988

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**17,781**



MAD CLAIMS

<b>CANAMIN RESOURCES LTD.</b>	
<b>CLINTON MINING DIVISION</b>	
<b>MAD PROJECT</b>	
<b>LOCATION MAP</b>	
Work by: TOM LISLE	Scale:
Drawn by: A.D.	Date: JUNE 1988
	Fig. 1

## CONTENTS

	<u>Page</u>
Summary	1
Introduction	3
Property	3
Location and Access	5
History	6
Work Program	6
Geology	7
Mineralization	8
Exploration Results:	
Drilling - Adit Area	9
Prospecting - Y.R. Showing	11
- EM 104 Showing	13
- 1478 Showing	13
- Watson Bar Creek Showing	14
Conclusions	14
Recommendations	15
Cost Estimate	16
References	17

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Certification	Appendix	1
Preliminary Cost Statement	Appendix	2
Assay Data	Appendix	3
Drill Logs, M88-1,2,3	Appendix	4

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### Maps

Location Map	Figure	1
Claim Map	Figure	2
Drill Plan - Holes M88-1,2,3	Figure	3
Drill Section - M88-1	Figure	4a
Drill Section - M88-2	Figure	4b
Drill Section - M88-3	Figure	4c
Sample Data - Madson Creek Area	Figure	5
Y.R. Showing, Assay Plan	Figure	6a
Y.R. Showing, Geological Sketch	Figure	6b
Watson Bar Creek - Assay Data	Figure	7

**SUMMARY**

The MAD gold prospect located at Watson Bar Creek in the Clinton Mining Division was staked by Utah Mines Limited in 1982 to evaluate anomalous geochemical responses for gold, arsenic and mercury. Between 1983 and 1986, the company carried out a program of road building and geological related surveys, and drilled twelve NQ holes aggregating 3204 metres in an unsuccessful search for economic concentrations of gold.

The property was optioned to Southern Gold Resources Ltd. in 1987. Southern carried out more detailed examinations on a number of selected untested targets within the claims. The results of this work were sufficiently encouraging to warrant further exploration. During the period of April 20 to June 15, 1988, CanaMin Resources Ltd., in conjunction with Southern Gold Resources Ltd., carried out a limited prospecting program within the claims and drilled three NQ holes on the Adit target located at Watson Bar Creek.

The adit prospect, comprised of two sections, is poorly exposed on the rugged south slope of the creek valley with an apparent trend of approximately 110°. A sill of quartz feldspar porphyry and the adjacent sedimentary rocks have been intruded by a mass of quartz veins mineralized with pyrite, arsenopyrite, and lesser amounts of chalcopyrite and sphalerite. Samples from this zone ranged up to 0.266 opt gold.

Drill hole M88-1 examined the area about 60 metres below and slightly east of the adit. Between 166.85 and 169.77M, the core is locally veined with quartz and quartz-carbonate around which the sedimentary rocks are mineralized with arsenopyrite and pyrite. Two samples assayed as follows:

91563	166.85 to 167.52M,	0.67 metres.	0.101 opt gold (3450 ppb)
91557	168.77 to 169.77M,	1.00 metres.	0.125 opt gold (4285 ppb)

Drill hole M88-2 located about 42 metres to the east, cut a similar section, and four samples assayed as follows:

91582	156.36 to 157.15M,	0.79 metres.	0.051 opt gold (1720 ppb)
91586	159.80 to 160.41M,	0.61 metres.	0.036 opt gold (1340 ppb)
91589	161.18 to 162.06M,	0.88 metres.	0.036 opt gold (1210 ppb)
91590	162.06 to 162.64M,	0.58 metres.	0.015 opt gold ( 800 ppb)

Drill hole M88-3 failed to cut comparable mineralization.

These preliminary investigations suggest that the mineralization in the adit area is structurally hosted along an easterly trending, southerly dipping zone. The extent and grade of this zone has not been defined and will require further evaluation.

Prospecting has shown that important gold assays have been obtained from several sites within the claims. The gold is commonly associated with high concentrations of arsenopyrite, and the sites may be part of a broad east southeast trend from the west boundary of the MAD 3 mineral claim through the east boundary of the MAD 1 mineral claim. At present, these sites are not drill targets, however the gold content is of sufficient interest to continue detailed prospecting and geological investigations.

A further exploration program is proposed for the MAD project for 1989. Five drill holes aggregating 1050 metres (3445 feet) are recommended to examine the area beneath and east of the drill intercepts located in 1988 drilling. Provision for a sixth hole to examine the area west of hole M88-3 should also be made but contingent on a favorable site being located to the west of the 1988 drilling. The prospecting started in 1988 should be expanded to the east boundary of the property.

The estimated cost of the proposed exploration program is \$235,000.00.

## INTRODUCTION

Southern Gold Resources Ltd. optioned the MAD group of mineral claims from Utah Mines Ltd. in 1987. The claims are located at Watson Bar Creek in the Clinton Mining Division in southern British Columbia.

The report covering the initial evaluation of the claim group by the author in 1987 proposed further exploration in two specific areas.

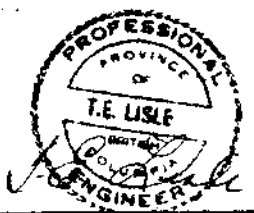
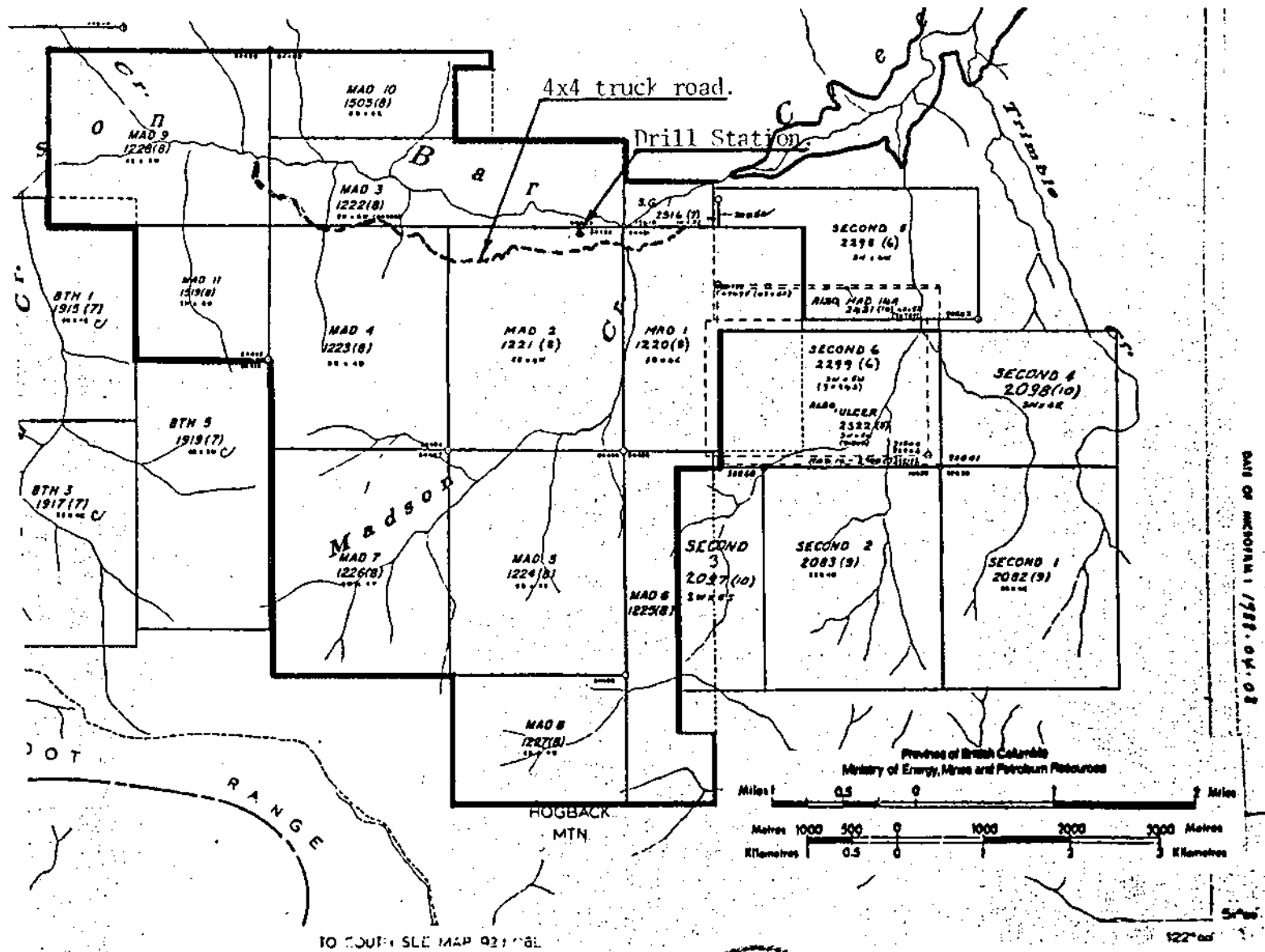
- a) Three drill holes were recommended to investigate an area of gold bearing quartz veins located and partly investigated by a short adit near Watson Bar Creek and,
- b) A limited amount of prospecting and further investigation of a gold occurrence found in 1987 at Madson Creek was proposed.

This work was undertaken by CanaMin Resources Ltd. and Southern Gold Resources Ltd. between April 20, 1988 and June 15, 1988.

The results of these investigations are presented herewith, and on maps and appendices accompanying this report.

## PROPERTY

The property optioned from Utah Mines Ltd. includes the following mineral claims staked and recorded in the Clinton Mining Division. The S.G. No. 1 two unit claim was staked by the author on July 15, 1987 and is now included within the definition of property.



CANAMIN RESOURCES LTD.  
CLAIM MAP, MAD CLAIM GROUP  
MICROFICHE DATE APRIL, 1988

FIG. 2

<u>Claim</u>	<u>Unit</u>	<u>Record No.</u>	<u>Anniversary</u>
S.G. #1	2	2316 (7)	1993
MAD 1	20	1220 (8)	1996
MAD 2	20	1221 (8)	1997
MAD 3	16	1222 (8)	1995
MAD 4	20	1223 (8)	1995
MAD 5	20	1224 (8)	1993
MAD 6	16	1225 (8)	1993
MAD 7	20	1226 (8)	1995
MAD 8	12	1227 (8)	1993
MAD 9	20	1228 (8)	1995
MAD 10	10	1505 (8)	1995
MAD 11	9	1519 (8)	1995

The Legal Corner Posts of the MAD 1,2,3 mineral claims were noted at the confluence of Watson Bar and Madson Creeks and a number of other intermediate posts were also noted in other areas. While the claims appear to be well located, their position relative to other mineral claims is not defined by survey and for this reason title is not guaranteed. In the area east of MAD 1 and MAD 6 there appears to be considerable overlapping of claims of uncertain ownership (Figure 2).

#### LOCATION AND ACCESS

The MAD mineral claims are centered roughly on Latitude 51° 03'; Longitude 122° 07' in map sheet NTS 920/1E in southern British Columbia.

The claims partly cover the drainage of Watson Bar and Madson Creeks that join and flow easterly to the Fraser River about 6.5 kilometers from the junction.

Access to the property is via the West Pavilion Road north from Lillooet, B.C., a distance of approximately 85 road kilometers. The first 65 kilometers are of good gravel surface suitable for logging trucks. After kilometre 70, the road can be extremely difficult in wet weather. Local access is by a four-wheel drive road constructed by Utah Mines Ltd. through the Hancock Ranch area in 1984.

Elevations within the claims range from about 500 to 2000 metres



above sea level. Much of the higher elevations are in areas of subdued topography, typical of the Interior Plateau. Many of the areas within Watson Bar and Madson Creek valleys, however, are precipitous and perhaps relate more to evolving tectonics of the Fraser River-Yalakom-Watson Bar Fault zones.

### HISTORY

Mr. H. Fenton of Lillooet reports visiting the adit area over 25 years ago, however the date on which the work was completed is unknown. Work by Utah Mines Ltd. included the following:

	<u>1983</u>	<u>1984</u>	<u>1985</u>
Geological Mapping (1:5,000)	300 ha	1,475 ha	-
Base Line Cutting	2.2 km	-	-
Line Cutting	-	49.85	-
Cross Line Flagged	15.0 km	-	-
Road Construction	-	12.61 km	-
Grid Soil Samples	312	500	-
Contour Soil Samples	726	-	-
Rock Geochem. Samples	296	480	-
VLF-EM	-	79.8 km	-
Magnetometer Survey	-	49.9 km	-
I.P. Survey, Gradient	-	19.2 km	5.4 km
I.P. Survey, Dipole	-	7.4 km	.95 km
Diamond Drilling (12 holes)			10,513.4 ft

In 1987, Southern Gold Resources Ltd. optioned the property and collected a further 229 talus fine or soil samples and 152 rock samples that were analyzed by conventional analytic techniques at Acme Laboratory in Vancouver. The base line was extended and picketed 950 metres to the east and four additional cross lines aggregating 2.4 kilometers were also completed.

### WORK PROGRAM

E. Scholtes of Williams Lake, B.C. was mobilized to the property April 21, 1988 and carried out a prospecting program in Watson Bar and Madson Creek drainages up to May 5, 1988. During the course of this work one soil sample and 26 rock samples were collected. The samples were analyzed for gold and mercury by

Atomic Absorption, and for 30 elements by ICP techniques at Acme Laboratory in Vancouver. B.C.

Between April 26, 1988 and May 4, 1988, an old D-8 bulldozer owned and operated by local rancher S. Lehman was used to build about 375 metres of drill access road, and a drill pad. The pad is located about 160 metres south of the old adit located near Watson Bar Creek. The road to the Utah drill camp was also partially cleared of debris.

B.C. Land Surveyor L. Marshik of Lillooet, B.C. surveyed in the location of drill station and the adit on May 6, 1988.

On May 10, 1988, Paragon Drilling Limited of Kamloops, B.C. mobilized a Longyear S-38 drill and accessory equipment to the local ranch area at Watson Bar Creek. The bulldozer was then used to move the equipment the nine kilometers to the drill site. Up to May 29, 1988 three NQ drill holes aggregating 672 metres (2205 feet) were completed from the drill site. The equipment was then moved to the ranch area, and was returned to Kamloops on June 2, 1988.

Between June 4 and 15, 1988 the author, with the help of field assistants, logged and split the core; and made brief follow-up visits to sites shown to be of interest either from the 1987 work, or from the prospecting work carried out in 1988. A total of 132 samples were split with conventional core splitter. Twenty-seven large channel-type rock samples were cut from small trenches on the gold occurrence in Madson Creek found in 1987. Six additional samples were taken from two occurrences found from prospecting in the Madson Creek area.

All samples were sent to Acme Laboratory in Vancouver. The samples were analyzed for gold by Atomic absorption, and for thirty elements by ICP techniques. Six samples with gold content of interest were subsequently screened for native metals and fire assayed. The assay data is shown on maps accompanying this report and in assay sheets appended hereto.

## GEOLOGY

The Watson Bar Creek area is near the eastern margin of the Camelsfoot Range that is largely underlain by sedimentary rocks

of the early Cretaceous Jackass Mountain Group. The Jackass Group in this area is reported to be approximately 5,300 metres thick and is comprised of volcanic-rich lithic wackes, shale and conglomerate mainly of marine origin.

The Jackass rocks originated in the Tyaughton-Methow basin complex developed at the intersection of several regional faults including the Yalakom and Fraser River Faults. Movement on these structures after deposition of the sediments has dissected the assemblage and separated remnants of the formation by as much as 150 kilometers and 110 kilometers along the Yalakom and Fraser River Faults respectively (Kleinspehn). The movement has also resulted in a number of faults peripheral to and internal to the Jackass Group remnant wedged between these faults. Watson Bar Creek flows partly along a major easterly trending lineament believed to be a cross fault to these structures.

Detailed mapping within the MAD claim group has shown the area to be highly fractured and faulted, commonly along the regional 90° - 110° trend, or along northeasterly trends. The work has also shown the area to be intruded by numerous tabular masses of feldspar and quartz feldspar porphyry and minor andesite and lamprohyre. Many of the felsic masses are highly altered and contain finely disseminated pyrite and minor arsenopyrite. Both the intrusions and the widespread faulting have imparted a variable array of attitudes to the sedimentary rocks.

### MINERALIZATION

The MAD property is part of a larger mineralized zone or belt near the eastern margin of the Jackass Mountain Group. The area includes Stirrup Creek to the west and may extend southeast to the headwaters of Leon Creek. H.V. Warren reports placer gold production up to 1945 from Stirrup Creek was 3,000 to 5,000 ounces. As placer operations have continued sporadically since that time, this figure may be significantly higher.

Work by Utah Mines Ltd. indicated that gold mineralization at the MAD property occurs in a number of interrelated environments that are well documented in the 1984 report. Briefly these include a) silicified stockworks of quartz and quartz-carbonate veinlets mineralized with pyrite, arsenopyrite and chalcopyrite, b) conformable veins and replacements that are highly siliceous

with variable carbonate content, and mineralized with arsenopyrite, pyrite and lesser to minor stibnite, chalcopryrite, galena and sphalerite, c) minor cross-cutting veins of quartz, arsenopyrite-scorodite or calcite with minor pyrite, chalcopryrite and sphalerite, d) massive sulphide veins up to 0.5 metres containing up to 100% sulphides of pyrrhotite, pyrite, arsenopyrite, sphalerite and minor chalcopryrite and galena and e) mineralized siltstones.

The higher gold concentrations have been found on the MAD property within gossanous areas marked by multidirectional fractures and faults, that in places post-date mineralization. These areas commonly include quartz-carbonate veining that is locally banded, and to a lesser extent quartz and chalcedony.

Within these areas there is a wide distribution, although possibly limited in size, of replacement-type? arsenic-rich horizons that in places are conformable but in others appear to cross-cut bedding. The highest gold assays are almost always associated with arsenopyrite. The arsenopyrite occurs in the above zones that may also contain minor stibnite and cinnabar. It also occurs in the stocwork-type areas, and is also present along with chalcopryrite, sphalerite and minor galena in veins associated with the replacement zones noted above.

## EXPLORATION RESULTS

### Adit Area

Preliminary work in 1987 revealed two sections of a mineralized zone on the MAD 3 claim located on the south flank of Watson Bar Creek. The zone occurs in and adjacent to a sill of quartz feldspar porphyry within a sedimentary assemblage dipping southerly in the range of 30° to 40°.

The intrusive and the adjacent argillite have been fractured, altered and intruded by a mass of quartz and quartz-carbonate? veins mineralized with gold, arsenopyrite, pyrite and lesser amounts of chalcopryrite and sphalerite with traces of galena. Most of the veins are less than three centimeters wide and many trend in the 320° to 340° range.

The main section of the mineralized zone, about 10 by 27 metres, is separated from a much smaller section by about 35 metres on a trend of about 110°. A number of samples of the zone ranged up to 0.266 opt gold over 0.5 metres. Sections of both zones appeared to have stratigraphic control, however, steeper faults evident mainly in graphitic argillite indicated that a steeper structural control to the mineralization may also be important.

The awkward location of the zone on the steep valley walls, along with deep talus cover and bluffs, made it impractical to trace the zone on surface by trenching. For this reason a preliminary drill test was proposed and a drill station cut at approximately 162 metres at a bearing of 163° from the old adit within the surface zone. In May, 1988, three NQ drill holes aggregating 672.1 metres (2205') were completed to examine the area about 60 metres beneath the adit and to the east and west (Figure 3).

The drill holes encountered all variations between dark argillite and coarse sandstone with minor pebble conglomerate. The sedimentary rocks are intruded and commonly altered around sills and dykes? of feldspar and quartz feldspar porphyry, that are also altered and mineralized with fine pyrite and minor arsenopyrite. The entire assemblage is cut by numerous veins and fractures of quartz-carbonate.

The drilling also cut numerous faults that are reflected in variations in bedding angles, and in the widespread shearing in the argillaceous horizons, particularly in the bottom sections of the holes. All of the holes cut a coarse grained porphyry unit at a depth of about 170 to 200 metres. This porphyry may be important as it is at least spatially related to mineralization encountered in drill holes 1 and 2.

Drill hole M88-1, about 60 meters below and slightly east of the adit cut a section veined with quartz and quartz carbonate around which the sedimentary rocks are locally mineralized with arsenopyrite and pyrite. Hole M88-2 about 40 metres to the east cut a similar section about the same distance from the collar. Hole M88-3 failed to cut similar mineralization. Assays of

significance from holes M88-1 and 2 are as follows:

		From(M)	To(M)	Width(M)	Au(opt)	Au(ppb)	As(ppm)
M88-1	91563	166.85	167.52	0.67	0.101	3450	32,498
M88-1	91557	168.77	169.77	1.00	0.125	4285	32,032
M88-2	91582	156.36	157.15	0.79	0.051	1720	11,520
M88-2	91586	159.80	160.41	0.61	0.036	1340	23,103
M88-2	91589	161.18	162.06	0.88	0.036	1210	10,146
M88-2	91590	162.06	162.64	0.58	0.015	800	2,151

These mineralized intercepts are not ore-grade, however, they do indicate that the mineralization may be part of a structurally controlled, southerly dipping zone trending easterly and perhaps related to major faulting along the Watson Bar Creek fault zone. The zone remains open at depth and to the east.

The veining encountered in the mineralized intercepts is weaker than that encountered on surface. This may be due to the permeability of the host rock, and secondly may also relate to the direction of drill holes relative to the direction of many of the surface veins. Unfortunately, the rugged terrain limits the selection of drill sites.

The reason for the lack of mineralization in hole M88-3 is not apparent. It may also relate to an absence of veining due to host rock lithology, however, a second plausible explanation is that dislocation along the surface graphitic argillite hanging wall fault may also be responsible. Because of the apparent linear nature of mineralization encountered in holes M88-1 and 2, a drill probe 30 to 40 metres west of hole M88-3, if possible, would provide important exploratory data, and perhaps clarify some of the structural problems in this area.

## PROSPECTING

### Y.R. Showing

Samples from a small showing located in 1987 on the west side of Madson Creek at elevation 998 metres (3275' Altimeter) assayed up to 15,100 ppb Au (equivalent to 0.44 opt Au). During 1988, the area was prospected for extensions without success, and several hand trenches were cut for mapping and sampling. Twenty-seven

large chip-channel type samples were taken from the main zone and five prospecting-type samples were collected from the surrounding area (Figure 6).

The prospect is partly exposed on a ledge thought to have originated in a bedding plane shear in silty to locally argillaceous sedimentary rocks. The general trend of the zone is north-northeast with highly variable westerly dips in the range of  $25^{\circ}$  to  $50^{\circ}$ . The zone is partly coincident with a dark arsenic-rich replacement zone of the same trend.

Within the confines of the ledge, the shear is complex both as to structure and mineralization. Westerly trending faults locally offset the zone or truncate it to the north and south. Northwesterly faults, locally marked by banded carbonate veins, and prominent in the vertical bluffs rising 60 to 100 metres above the ledge, also disrupt the zone internally.

Small sections of the shear are filled with quartz veins up to 0.10 metres wide mineralized with arsenopyrite, chalcopyrite and pyrite. (Sample 1377 with the high assay reported above was of this material). Sulphides also occur in the adjacent sections of the shear and these areas are commonly strongly limonitic in contrast to the gougy-grey unmineralized sections.

The 27 samples from the zone assayed 22 to 9910 ppb gold and 37 to 33,828 ppm arsenic. The higher gold assays are commonly associated with high copper and zinc. Minor amounts of stibnite and cinnabar, evident mainly in the replacement zone, give rise to anomalous but not consistently high levels of antimony and mercury, where assayed. The higher gold assays are commonly scattered and separated by areas of much lower grades. This distribution may relate to initial mineralization of the shear, however, it is suspected that repetitive movement both along and across the shear were also contributing factors.

This showing differs from the adit showing in that it is associated with a shear that is spatially related to a surface arsenic-rich layer; the gold grades are generally less; and it lacks the intensity of veining found in the adit area. The mineralogical associations are generally similar. In view of the location, the setting, the grades and the apparent disjointed nature of the zone, it would be a difficult target to evaluate by drilling. The data might be reviewed again if encouragement is obtained in work proposed for the adit area at Watson Bar Creek.

### EM 104 Showing

Prospecting sample 1456 (EM 104) assaying 9.72 ppm gold (equivalent to 0.28 opt gold) was collected from a 080° shear in sandstone close to Madson Creek (Figure 5).

The sandstone adjacent to the narrow shear is bleached, locally chalcedonic, and in places mineralized with pyrite and arsenopyrite. Approximately five metres from the sample flag, a number of narrow quartz fractures are present in limonitic shears that trend about 070°.

Four samples were collected from the general area. All samples yielded less than 5 ppb gold and only one sample revealed high arsenic content (17,036 ppm As).

There remains uncertainty as to a) the exact material initially sampled and b) whether the bleaching and mineralization is related to a simple 080° shear, or whether other structural features may also be important.

A limited follow-up of trenching and detail geology would help clarify the significance of the showing.

### 1478 Showing

Sample 1478 from the prospecting program is located at the base of a bluff face at elevation 1112m (3650') on the east slope of Madson Creek Valley. The sample was selected from a 345°/62E quartz vein up to 4cm wide, mineralized with arsenopyrite and pyrite. It assayed 1.36 ppm Au (equivalent to 0.039 opt Au), and 9028 ppm arsenic. A re-sample by the author across 1.00 metre including the vein and altered siltstones yielded 735 ppb Au and 6273 ppm As.

The vein is thought to be part of a stockwork of veins within the bluffs, and possibly related to an intrusive dyke or sill. About 10 metres to the south along the bluffs, a number of other veins, locally mineralized with pyrite and chalcopyrite were noted. One of these veins was sampled but revealed only low concentrations gold and arsenic but +1000 ppm copper (1478B).

This is an interesting area that requires a few days further investigation both by prospecting of extensions, and of detailed



sampling and mapping with any needed trenching. The area is, however, close to an uncertain eastern boundary to the MAD claim group, and prior to undertaking further work in this direction, both the ownership and location of the boundary should be ascertained.

#### Watson Bar Creek

Previous work on the north slope of Watson Bar Creek about two kilometers west of the adit had revealed locally high concentrations of arsenic in geochemical samples. The terrain is extremely rugged, and access to some sections is restricted or difficult.

Nine additional samples were collected from the area during prospecting traverses. Three of the samples yielded anomalous gold (145 to 1550 ppb Au), and all samples yielded highly anomalous arsenic (Figure 7).

The two highest gold assays are from talus samples from a talus fan, and appear to be siliceous replacement of dark argillaceous horizons mineralized with arsenopyrite and lesser pyrite. Although a number of small to medium sized fragments are present, they do not constitute a high percentage of the talus. It is assumed that the mineralized fragments originated from a mineralized lens or layer high in the bluffs. It was not observed in place.

Because of the highly rugged nature of this area, and because a large number of samples had been collected by previous operators without significant encouragement, there is a reluctance to recommend a significant follow-up. A traverse might be attempted into the high bluff area from the north to determine whether the mineralization can be located.

#### CONCLUSIONS

Surface investigations and subsequent drilling of the adit prospect on the MAD mineral claims has revealed a mineralized zone that appears to be structurally controlled along an easterly trend with a southerly dip.

The highest surface sample from this zone yielded 0.266 opt gold over 0.5 metres. The highest sample from drilling was 0.125 opt gold over one metre.

The zone remains open at depth and along strike to the east. The potential as to size and grade will require further drilling to assess.

The adit prospect is one of several areas within the MAD mineral claims that have yielded important gold assays from samples. Many of these sample sites are scattered within a zone that may trend east-southeast from the western end of the MAD 3 claim through the eastern boundary of the MAD 1 claim. The significance of any of these zones remains in doubt, and further work will be necessary to assess their potential.

#### RECOMMENDATIONS


- 1) Prepare a second drill site about 45 metres east of the 1988 drill site.
- 2) Survey and, if a site can be found within a reasonable drilling distance, prepare a third site about 100 metres west of the 1988 site.
- 3) Drill two holes from the 1988 site to cut the downward projections about fifty metres below mineralized intercepts in holes M88-1 and 2.
- 4) From the drill station to the east, drill two holes northerly to cut the projection of the mineralization at 60 and 110 metres below surface and approximately 40 metres east of the M88-2 intercept. A fifth hole could then be drilled to cut the eastward projection a further 40 metres east and about 60 metres beneath surface.
- 5) Contingent on No. 2 above, drill a sixth hole northerly to investigate the area west of hole M88-3.
- 6) Define the eastern boundary of the MAD 1 claim and continue detailed prospecting and sampling programs.

COST ESTIMATES

Topographic Map - Survey	\$ 4,000.00
*Drilling - 5 NQ holes @ 210M = 1050M (3445' @ \$38.00)	130,910.00
*Drilling - Contingent @ 300M = 984' @ \$38.00	37,392.00
Supervision - approx. 30 @ \$300.00	9,000.00
Assistant - approx. 30 @ \$100.00	3,000.00
Transportation and Miscellaneous Supplies	4,500.00
Assay - approx.	3,500.00
Prospecting - 30 @ \$150.00 + miscellaneous	5,000.00
Truck and Fuel	2,500.00
Geology & Supervision 25 @ \$300.00	7,500.00
Assistant 25 @ \$100.00	2,500.00
Assay & Supplies	2,500.00
Report & Drafting	3,500.00
	<u>215,802.00</u>
Contingency	<u>19,198.00</u>
TOTAL	<u>\$ 235,000.00</u>

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 June 30, 1988



T.E. LISLE P.Eng.

\* 1988 Direct drill costs including bulldozer are about \$36.40/foot.

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- LISLE, T.E.               Geological Report on the MAD Claim Group for Southern Gold Resources Ltd., October 28, 1987.

# T.E. LISLE & ASSOCIATES LTD.

GEOLOGICAL SERVICES

145 West Rockland Road, North Vancouver, B.C. V7N 2V8

Telephone 604-987-0821

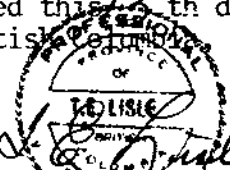
## APPENDIX 1

### CERTIFICATION.

I Thomas F. Lisle, do hereby declare:

- 1) That I am a geologist with business at the above address.
- 2) That I have practiced my profession for over twenty years, mainly in western North America.
- 3) That I am a member in good standing of the Association of Professional Engineers of British Columbia, and of the Geological Association of Canada.
- 4) That I supervised the work program on the Mad mineral claims conducted during April, May and June, 1988.
- 5) That I prepared this report on the above work program, and used the results of the work and background data contained in the reference section to draw conclusions to the report.
- 6) That I have no interest in the Mad group and related mineral claims, or in the securities of either Canamin Resources Limited or Southern Gold Resources Limited. Forfeiting the property to Southern Gold Limited in 1987, I will receive a fee equal to 2% of the funds expended by Southern Gold and related companies until such time as those funds match expenditures by Utah Mines Limited.
- 7) Permission to use this report 'In total' in a prospectus related to raising funds for proposed further exploration of the Mad Claims is hereby granted.

Dated this 13th day of Aug. 1988 in the district of North Vancouver,  
British Columbia, Canada.

  
\_\_\_\_\_  
T.E. Lisle, P. ENG.

APPENDIX 2

PRELIMINARY COST STATEMENTS

T.E. Lisle & Associates	
- Fees & Disbursements including Truck Rentals	\$ 21,023.24
E. Scholtes - April 21 to May 5, 1988	2,368.00
P. MacKenzie - June 4 to 9, 1988	900.00
T. Hancock Jr. - June 11 to 14, 1988	320.00
S. Quin - May 21,22, 1988	450.00
L. Moushic - Land Surveyor	545.00
Acme Analytical Laboratory	*2,938.85
Paragon Drilling Limited	73,629.65
S. Lehman - Bulldozer	6,637.50
Miscellaneous Expenses	216.82
Assessment Filing Fees	*2,840.00
Drafting	*1,152.69
Sperry - Sun Survey	*1,750.00
Report & Miscellaneous Expenses	*3,000.00
	<hr/>
Sub-total	117,771.75
Management Fee @ 5%	<hr/> 5,888.58
TOTAL	<hr/> \$ 123,660.34

\* Estimates - final invoices incomplete

June , 1988

*August 13, 1988.*

T.E. Lisle



APPENDIX 3

ASSAY DATA

Reports: 88-1230  
88-1321  
88-1531 & 1531R  
88-1714 & 1714R  
88-2014  
88-2017



**GEOCHEMICAL ANALYSIS CERTIFICATE**

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR HM PB CA P LA CR NG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: ROCK Au\* ANALYSIS BY AA FROM 10 GRAM SAMPLE. HG ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: APR 29 1988

DATE REPORT MAILED: *May 4/88*

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

CANAMIN RESOURCES PROJECT-MAD File # 88-1230

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*	Hg
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	%	%	%	%	PPM	PPB	PPB
R 1453	1	51	10	64	.1	17	15	1264	5.46	<u>5675</u>	5	ND	1	227	1	<u>1699</u>	2	76	7.00	.044	5	11	2.58	40	.01	7	.53	.03	.01	1	1	<u>28000</u>
R 1454	1	47	5	65	.1	16	15	1295	4.84	<u>6167</u>	5	ND	1	146	1	<u>159</u>	2	63	6.22	.065	3	10	2.17	30	.01	11	.43	.03	.03	1	1	<u>7400</u>
R 1455	1	318	8	26	.1	10	19	1087	6.43	<u>836</u>	5	ND	1	595	1	16	2	61	9.42	.062	4	5	3.94	37	.01	7	.38	.01	.04	1	1	<u>1400</u>
R 1456	1	<u>665</u>	15	67	<u>1.9</u>	23	44	634	11.85	<u>159</u>	5	9	1	62	1	7	67	85	.37	.039	5	13	.83	63	.01	6	1.06	.07	.03	1	<u>5720</u>	5
R 1457	1	<u>249</u>	2	62	.1	16	18	1313	5.59	<u>4506</u>	5	ND	1	279	1	4	2	113	5.50	.056	7	12	2.62	18	.01	10	.55	.04	.02	1	<u>19</u>	<u>540</u>
R 1458	1	33	7	51	.2	15	11	1164	4.57	<u>1780</u>	5	ND	1	451	1	64	2	72	8.30	.024	3	15	3.69	33	.01	8	.45	.01	.02	1	1	<u>220</u>
R 1459	1	44	12	69	.1	13	16	922	6.27	<u>233</u>	5	ND	2	187	1	3	2	103	3.21	.049	5	14	1.76	34	.01	12	.60	.02	.02	1	1	<u>240</u>
R 1460	1	20	4	36	.1	8	7	972	3.88	<u>1444</u>	5	ND	1	514	1	8	2	60	7.95	.025	5	10	3.34	33	.01	9	.52	.02	.02	1	1	<u>1600</u>
STD C/AU-R	19	63	41	132	7.4	71	31	1058	4.14	43	22	8	39	53	19	19	20	60	.49	.090	42	60	.97	180	.07	33	1.82	.09	.14	12	515	1300

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE CA P LA CR NG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: P1 ROCK P2 SOIL AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE. NG ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: MAY 06 1988

DATE REPORT MAILED: May 12/88

ASSAYER: C. Leong, D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

CANAMIN RESOURCES PROJECT-MAD File # 88-1321 Page 1

SAMPLE#	Hg	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tb	Sr	Cd	Sb	Bi	V	Cr	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*	Hg
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM	PPM	
R 1461	1	54	22	42	.1	2	6	1457	3.85	1950	5	ND	1	396	1	2	2	11	11.86	.015	17	2	3.59	36	.01	12	.27	.02	.10	1	1	190
R 1452	4	37	26	53	.1	3	7	839	3.56	15	5	ND	1	307	1	2	2	48	6.94	.028	3	7	2.46	24	.01	10	.40	.01	.03	1	1	310
R 1463	1	36	11	54	.1	6	9	1064	4.48	111	5	ND	1	294	1	2	3	60	6.07	.028	8	7	1.90	102	.01	19	.50	.02	.06	1	1	460
R 1464	1	50	14	39	.1	6	14	1041	4.81	8460	5	ND	1	207	1	369	2	47	9.12	.019	2	4	2.28	113	.01	14	.32	.01	.01	1	2	13600
R 1465	1	92	15	49	.1	12	5	475	2.72	4746	5	ND	1	275	1	68	4	43	3.48	.012	2	8	1.06	36	.01	22	.73	.01	.08	1	1	8000
R 1466	1	7170	86	425	8.0	11	18	1056	13.83	4590	5	ND	1	142	5	2648	23	29	4.44	.127	2	4	1.87	14	.01	16	.29	.01	.04	1	145	22000
R 1467	1	38	27	50	.1	5	4	610	2.82	5352	5	ND	1	293	1	146	2	13	7.21	.020	2	3	1.24	77	.01	13	.36	.01	.06	1	15	4000
R 1468	1	54	14	56	.1	5	4	579	2.45	3243	5	ND	1	239	1	93	6	11	6.05	.010	2	6	1.96	218	.01	12	.24	.01	.03	1	1	920
R 1469	1	48	21	51	.1	6	12	1710	5.85	2337	5	ND	1	485	1	24	2	27	13.23	.004	5	3	3.06	60	.01	3	.24	.01	.03	1	1	2800
R 1470	1	45	50	160	.2	8	7	681	3.91	16054	5	ND	1	171	1	227	4	24	3.79	.007	2	4	1.21	59	.01	9	.38	.01	.05	1	1	1050
R 1471	1	26	15	45	.1	7	7	688	2.67	9735	5	ND	1	228	1	4	2	43	4.77	.019	4	10	2.02	19	.01	7	.56	.01	.01	1	2	3800
R 1472	21	202	1802	1571	8.9	5	9	409	9.89	13074	6	ND	2	126	9	3104	3	13	2.36	.005	2	4	.77	34	.01	3	.13	.01	.05	1	1550	5600
R 1473	81	281	2428	2255	3.7	15	9	444	4.51	18573	5	ND	1	88	15	593	2	19	2.59	.008	2	9	.86	30	.01	3	.18	.01	.05	1	640	1600
R 1474	1	25	255	112	.1	5	4	678	2.98	2408	5	ND	1	239	1	50	2	16	6.30	.004	2	5	1.89	312	.01	5	.13	.01	.01	1	6	1000
R 1475	1	22	20	29	.1	2	5	1431	5.89	11679	5	ND	1	272	1	544	2	34	11.23	.006	2	3	3.04	98	.01	2	.23	.01	.01	1	2	12000
R 1476	1	59	120	33	.1	1	4	1477	7.15	16443	5	ND	1	228	1	6839	4	29	10.59	.005	2	2	2.84	28	.01	7	.20	.01	.02	1	1	160000
R 1477	21	1163	21	47	.1	21	41	863	6.38	941	5	ND	1	236	1	61	3	37	4.46	.015	6	10	1.78	27	.01	2	.21	.01	.03	1	8	3100
R 1478	5	64	131	101	.2	11	7	671	3.30	9028	5	ND	1	289	1	8	3	17	3.43	.033	6	7	1.38	35	.01	12	.26	.02	.11	1	1380	130
STD C/AD-1	19	61	44	133	6.7	68	31	1166	3.98	42	18	7	38	50	18	19	20	59	.46	.085	40	61	.85	181	.07	32	1.90	.07	.15	13	520	1300

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Tb PPM	St PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Hg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au <sup>g</sup> PPB	Hg PPB
EM-125	1	66	8	60	.1	32	14	515	4.09	184	3	ND	1	67	1	2	2	71	.86	.012	12	37	.66	150	.09	7	2.39	.02	.10	1	1	160

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCl-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR NH PR CA P LA CR HG BA TI B W AND LIMITED FOR NA K AND AL. NO DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Core AD ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: MAY 24 1988

DATE REPORT MAILED: May 26/88

ASSAYER: C. Leong D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

CANAMIN RESOURCES PROJECT-MAD File # 88-1531

Table with columns: SAMPLE#, Mo, Cu, Pb, Zn, Ag, Ni, Co, Na, Fe, As, U, Au, Tl, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Tl, B, Al, Mn, K, W, Au\*. Rows include sample IDs 091551 through 091569 and STD C/AU-R with corresponding element concentrations in PPM.

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: JUN 13 1988  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: *June 24/88.*

**ASSAY CERTIFICATE**

-100 MESH AU BY FIRE ASSAY FROM 1 A.T.  
- SAMPLE TYPE: REJECT

ASSAYER: *C. Leong*... D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

CANAMIN RESOURCES PROJECT-MAD File # 88-1531R

SAMPLE#	SAMPLE wt. gm	AU-100 oz/t	NATIVE Au mg	AVG. oz/t
091557	1500	.125	ND	.125
091563	450	.101	ND	.101

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR NH FR CA P LA CR HG BA TI B W AND LIMITED FOR NA K AND AL. NO DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JUN 01 1988

DATE REPORT MAILED: June 8/88

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

CANAMIN RESOURCES PROJECT-MAD File # 88-1714

SAMPLE#	No	Cu	Pb	Zn	Ag	Wt	Co	Mn	Fe	As	U	Au	Tb	Sc	Cd	Sb	Bi	V	Ca	F	La	Cr	Hg	Ba	Ti	B	Al	Na	K	W	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM
1479	2	54	6	67	.2	29	20	607	4.96	2949	5	ND	1	220	1	2	2	38	3.43	.043	3	10	1.37	55	.01	6	.44	.01	.01	2	160
1480	1	74	5	106	.1	30	22	1754	4.25	59	5	ND	1	295	1	2	2	54	5.59	.050	6	9	1.69	90	.01	7	.46	.01	.03	1	13
1481	1	35	11	63	.3	15	11	717	3.59	2265	5	ND	1	267	1	2	2	717	3.88	.056	4	18	1.59	63	.01	9	.36	.01	.01	1	20
91570	1	9	8	106	.1	4	1	647	1.74	95	5	ND	1	246	1	2	2	19	4.71	.016	2	5	1.61	52	.01	9	.39	.01	.01	1	3
91571	1	6	9	167	.1	1	1	762	.08	334	5	ND	1	313	1	2	2	3	5.45	.017	4	1	1.44	60	.01	8	.28	.01	.08	1	4
91572	1	6	17	107	.3	1	1	725	.66	330	5	ND	1	109	1	2	2	1	2.23	.021	7	1	.04	74	.01	8	.22	.01	.09	1	8
91573	1	13	2	230	.1	1	1	589	.65	960	5	ND	1	50	1	2	2	1	1.15	.022	7	1	.44	73	.01	12	.22	.01	.09	1	11
91574	1	9	2	123	.1	1	1	701	.58	1402	5	ND	1	129	1	2	2	1	2.20	.019	5	1	.56	46	.01	7	.22	.01	.04	1	18
91575	1	5	7	140	.2	1	1	639	.56	370	5	ND	1	102	1	2	3	1	1.87	.021	7	1	.62	66	.01	5	.23	.01	.08	1	3
91576	2	15	10	68	.2	6	3	630	1.54	297	5	ND	1	172	1	2	2	14	3.20	.023	5	7	1.00	78	.01	6	.46	.01	.06	1	4
91577	1	5	7	87	.5	16	9	1017	2.88	66	5	ND	1	618	1	2	2	34	0.18	.033	5	8	2.47	46	.01	10	.33	.01	.02	1	1
91578	1	2	10	62	.3	2	1	594	.96	628	5	ND	1	186	1	2	2	3	3.21	.019	7	1	1.02	37	.01	9	.28	.01	.07	1	5
91579	21	90	14	84	.2	30	20	466	6.82	110	5	ND	1	126	1	2	2	34	2.18	.046	2	17	1.29	23	.01	5	.45	.01	.03	1	10
91580	1	64	8	84	.1	27	19	999	5.22	80	5	ND	1	185	1	2	2	48	2.80	.064	4	11	1.45	22	.01	6	.47	.01	.01	2	4
91581	3	62	6	71	.2	26	17	678	4.72	74	5	ND	1	286	1	2	2	43	5.22	.030	3	8	1.78	51	.01	5	.39	.01	.02	2	5
91582	3	28	30	47	.1	24	13	846	3.81	11520	5	ND	1	227	1	2	2	28	4.36	.042	3	15	1.61	31	.01	3	.25	.01	.01	1	1720
91583	1	46	9	81	.5	18	14	712	3.91	1080	5	ND	1	305	1	2	2	36	4.63	.046	4	11	2.37	83	.01	5	.36	.01	.04	1	93
91584	1	36	9	59	.5	17	12	664	4.05	359	5	ND	1	258	1	2	3	37	5.02	.055	4	15	2.26	46	.01	6	.59	.01	.02	2	39
91585	1	40	8	85	.4	20	13	678	4.14	767	5	ND	1	414	1	2	2	40	6.28	.050	3	13	3.05	82	.01	6	.38	.01	.01	1	49
91586	1	14	36	75	.4	20	14	966	4.89	23103	5	ND	1	129	1	2	2	42	3.20	.057	3	12	2.01	46	.01	9	.32	.01	.05	1	1340
91587	1	45	8	87	.3	21	14	949	4.14	2561	5	ND	1	99	1	2	3	49	2.69	.065	5	15	1.70	47	.01	8	.39	.01	.04	2	170
91588	1	61	20	95	.4	23	14	831	4.41	3219	5	ND	1	226	1	2	2	40	3.97	.054	3	12	2.16	37	.01	8	.35	.01	.02	1	240
91589	1	52	92	106	.4	22	14	1214	4.34	10146	5	ND	1	201	1	2	3	30	4.06	.054	3	9	1.95	40	.01	6	.32	.01	.03	1	1210
91590	3	34	23	56	.2	25	16	1039	5.95	2151	5	ND	1	176	1	2	3	25	3.62	.037	2	8	1.65	15	.01	4	.27	.01	.03	1	800
91591	1	40	4	36	.5	22	12	802	3.23	165	5	ND	1	332	1	2	2	45	6.75	.025	3	16	2.90	46	.01	6	.32	.01	.01	2	9
91592	1	5	9	33	.6	4	3	697	2.55	92	5	ND	1	523	1	2	2	17	11.12	.019	4	2	5.13	63	.01	9	.27	.01	.01	1	3
91593	1	30	10	37	.5	14	8	799	3.98	4773	5	ND	1	390	1	136	3	33	9.84	.022	6	8	3.77	47	.01	3	.31	.01	.01	1	1
91594	6	73	7	81	.6	24	14	1364	4.28	182	5	ND	1	164	1	2	2	58	5.72	.055	5	18	2.20	56	.01	8	.47	.01	.06	1	5
91595	2	61	6	69	.1	27	15	696	4.89	56	5	ND	1	126	1	2	4	50	2.53	.047	3	16	1.74	47	.01	5	.44	.01	.02	1	1
91596	1	64	6	81	.3	28	17	703	4.84	78	5	ND	1	147	1	2	3	53	2.98	.049	3	18	2.13	54	.01	4	.51	.01	.01	2	1
91597	1	24	5	59	.4	8	6	971	3.39	2047	5	ND	1	630	1	2	2	25	9.90	.017	2	5	4.65	171	.01	6	.34	.01	.01	1	18
91598	4	54	25	51	.5	14	11	614	3.54	228	5	ND	1	348	1	3	2	20	6.69	.041	2	5	2.98	46	.01	10	.36	.01	.01	2	7
91599	1	53	6	76	.5	26	16	635	4.90	81	5	ND	1	161	1	2	2	45	2.14	.046	6	12	1.56	75	.01	5	.43	.03	.06	2	2
91600	2	73	13	74	.4	28	18	690	4.92	163	5	ND	1	293	1	2	2	33	3.20	.058	3	10	1.55	47	.01	8	.40	.01	.04	1	37
STD C/AU-R	18	59	37	131	7.0	69	30	1074	4.07	39	18	7	37	49	18	18	19	61	.49	.084	39	58	.94	178	.07	35	1.79	.06	.15	14	500

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: JUN 13 1988

DATE REPORT MAILED: *June 29/88*

**ASSAY CERTIFICATE**

-100 MESH AU BY FIRE ASSAY FROM 1 A.T.  
- SAMPLE TYPE: REJECT

ASSAYER: *C. Leong* . D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

CANAMIN RESOURCES PROJECT-MAD File # 88-1714R

SAMPLE#	SAMPLE AU-100		NATIVE	AVG.
	wt. gm	oz/t	Au mg	oz/t
91582 NC	490	.050	.02	.051
91586 NC	500	.036	ND	.036
91589 NC	470	.036	ND	.036
91590 NC	350	.015	ND	.015

*Man Keapeary*

**GEOCHEMICAL ANALYSIS CERTIFICATE**

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUN 16 1988

DATE REPORT MAILED: *June 21/88*

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

CANAMIN RESOURCES File # 88-2014 Page 1

SAMPLE#	No	Cu	Pb	Zn	Ag	Mi	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM
R 1482	1	42	107	173	.7	6	5	546	2.08	61	5	ND	1	169	1	2	17	3.88	.028	5	5	1.40	42	.01	9	.39	.04	.08	1	1	
R 1483	1	45	12	91	.4	5	5	647	2.35	205	5	ND	1	226	1	2	2	19	4.97	.025	5	5	1.86	241	.01	16	.34	.04	.06	1	1
R 1484	2	29	18	95	.3	8	10	911	3.48	127	5	ND	1	131	1	2	2	63	3.27	.068	9	10	1.10	115	.01	6	1.05	.04	.09	1	1
R 1485	1	38	6	95	.3	8	8	857	3.42	355	5	ND	1	243	1	4	3	42	5.04	.054	9	7	2.11	111	.01	6	.45	.04	.08	1	3
R 1486	1	87	6	87	.4	34	16	594	3.34	106	5	ND	1	139	1	28	2	49	3.82	.061	8	19	1.63	156	.01	8	1.09	.01	.10	1	2
R 1487	1	65	6	81	.3	33	17	920	4.31	35	5	ND	2	262	1	2	2	87	5.33	.048	10	51	2.16	1211	.01	2	1.77	.02	.06	1	1
R 1488	4	84	12	73	.3	28	21	449	5.05	13	5	ND	1	64	1	2	2	36	1.74	.030	9	13	1.06	51	.01	4	1.13	.03	.13	1	3
R 1489	1	76	10	73	.3	27	18	522	4.53	40	5	ND	1	104	1	2	2	47	3.51	.044	8	18	1.10	80	.01	3	1.42	.02	.10	1	3
R 1490	1	18	10	43	.4	7	5	560	2.61	321	5	ND	2	138	1	2	2	19	3.39	.028	5	4	1.17	44	.01	2	.37	.01	.07	2	8
R 1491	1	7	7	53	.2	5	5	589	2.11	38	5	ND	2	76	1	2	2	25	2.60	.033	8	5	.73	51	.01	8	.35	.01	.09	1	1
R 1492	1	56	6	90	.5	24	15	1109	4.72	47	5	ND	3	253	1	3	2	45	4.66	.070	6	13	2.47	60	.01	2	.55	.03	.10	1	1
R 1493	1	55	9	81	.4	26	15	683	5.12	78	5	ND	2	123	1	2	2	44	2.90	.037	7	13	1.65	49	.01	4	.56	.03	.08	1	1
R 1494	1	154	9	110	.4	32	18	603	5.22	85	5	ND	1	160	1	4	4	35	3.16	.061	5	13	1.61	43	.01	4	.52	.03	.08	3	1
R 1495	1	78	2	71	.2	109	27	1001	5.65	160	5	ND	1	255	1	2	2	127	4.66	.028	3	123	3.45	94	.01	10	.53	.04	.02	1	1
R 1496	1	9	17	2084	.4	2	1	521	.92	367	5	ND	3	46	2	2	2	3	.84	.017	6	1	.34	86	.01	5	.43	.01	.14	8	15
R 1497	2	26	5	44	.3	7	5	484	2.02	38	5	ND	1	105	1	2	2	18	2.49	.019	4	5	1.05	42	.01	10	.40	.02	.06	1	1
R 1498	1	45	4	79	.1	22	13	464	3.14	108	5	ND	1	295	1	2	3	31	2.32	.038	4	8	1.31	126	.01	16	.42	.03	.07	1	1
R 1499	1	36	2	59	.3	22	12	519	3.80	45	5	ND	1	174	1	2	2	39	2.43	.041	8	10	1.33	62	.01	4	.40	.03	.08	1	1
R 1500	1	18	5	48	.2	7	8	748	3.22	31	5	ND	1	188	1	2	2	46	4.68	.036	5	7	1.92	52	.01	7	.33	.01	.03	1	2
12513	1	90	7	60	.5	22	16	523	6.20	170	5	ND	2	91	1	2	2	41	1.78	.031	11	8	1.14	74	.01	7	.55	.01	.12	1	1
12514	5	62	7	97	.3	29	23	759	4.73	9	5	ND	2	68	1	2	2	31	2.21	.044	10	17	1.36	59	.01	2	1.25	.02	.12	1	2
12515	7	97	8	92	.7	29	18	347	4.78	14	5	ND	4	58	1	2	2	22	.64	.059	10	10	1.12	39	.01	4	1.12	.06	.15	1	1
12516	4	112	20	78	.8	30	22	491	7.77	25	6	ND	4	64	1	4	2	20	.76	.050	15	5	.65	13	.01	3	.61	.04	.15	1	1
12517	1	14	5	47	.3	6	5	562	2.40	28	5	ND	2	69	1	2	2	24	1.20	.032	4	5	.59	66	.01	2	.29	.04	.05	1	1
12518	1	6	11	56	.2	8	6	522	2.02	25	5	ND	1	124	1	2	2	25	2.83	.033	7	8	.70	379	.01	3	.39	.01	.05	1	1
12521	1	67	5	92	.3	28	16	1063	4.82	41	5	ND	1	136	1	2	4	57	3.32	.085	4	19	1.68	36	.01	2	.54	.04	.09	1	1
12522	8	75	9	133	.2	20	14	807	3.21	198	5	ND	1	257	1	5	2	25	5.06	.038	5	6	2.13	57	.01	3	.42	.01	.09	1	3
12523	2	79	5	137	.2	14	10	1428	3.49	102	5	ND	2	186	1	3	2	27	4.50	.035	4	8	1.92	62	.01	6	.46	.03	.07	1	1
12524	3	112	11	81	.3	26	17	719	5.01	439	5	ND	2	170	1	6	2	23	3.14	.070	8	6	1.68	62	.01	4	.50	.03	.14	1	2
12525	1	90	4	84	.3	118	27	1079	5.79	151	5	ND	1	290	1	2	2	139	5.15	.043	5	112	3.60	150	.01	23	.51	.07	.03	1	1
12526	2	71	8	81	.3	28	16	591	4.90	75	5	ND	2	195	1	5	2	28	2.78	.059	5	9	1.41	48	.01	7	.50	.02	.09	1	2
12527	1	112	4	58	.3	32	19	743	4.87	705	5	ND	2	174	1	10	2	31	4.37	.059	7	9	1.39	111	.01	4	.40	.03	.12	1	4
12528	1	67	6	80	.2	26	19	565	3.57	93	5	ND	1	190	1	2	2	42	2.92	.033	8	10	1.53	80	.01	0	.44	.03	.08	1	1
12529	1	13	4	51	.3	7	8	847	2.77	286	5	ND	1	227	1	4	2	24	4.93	.038	5	4	1.77	45	.01	11	.35	.02	.09	2	10
12530	1	42	5	72	.4	22	12	777	4.19	42	5	ND	2	423	1	5	2	62	6.22	.006	5	17	2.94	209	.01	8	.38	.03	.05	1	2
12531	1	49	4	56	.3	143	24	1093	5.06	57	5	ND	1	442	1	2	2	113	5.43	.005	2	133	4.52	76	.01	7	.32	.03	.02	1	1
STD C AC-R	1	59	37	102	5.7	58	28	1546	3.85	35	23	37	45	15	16	19	55	4.47	.086	38	55	1.90	175	.06	34	1.80	.06	.12	13	495	



## CANAMIN RESOURCES FILE # 88-2014

Page 2

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Hg PPM	Co PPM	Mn PPM	Fe %	As PPM	V PPM	Au PPM	Tb PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	Y PPM	Ce %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
55640	7	135	9	64	.3	24	17	528	5.10	197	5	ND	2	157	1	11	2	33	2.93	.052	4	8	1.34	49	.01	11	.52	.01	.12	1	4
55641	1	6	3	55	.1	8	9	682	2.94	27	5	ND	2	119	1	2	3	50	3.04	.040	5	7	1.38	37	.01	4	.41	.01	.04	1	5
55642	1	8	3	46	.2	6	7	788	2.78	145	5	ND	2	128	1	2	3	24	3.65	.029	4	5	1.40	60	.01	3	.36	.01	.12	2	20
55643	1	53	2	64	.1	24	16	588	3.58	46	5	ND	2	171	1	2	3	61	3.81	.027	6	14	1.90	36	.01	4	.46	.01	.04	1	4
55644	1	34	4	67	.2	12	8	696	3.25	25	5	ND	1	312	1	3	2	32	5.31	.031	3	5	2.07	266	.01	2	.45	.01	.06	1	4
55645	1	57	4	79	.2	22	17	607	3.56	55	5	ND	1	318	1	2	2	67	3.91	.048	5	12	1.88	279	.01	3	.62	.01	.06	1	2
55646	1	25	3	52	.1	7	6	448	2.09	17	5	ND	1	120	1	2	2	17	1.86	.013	2	3	.90	226	.01	4	.40	.01	.10	2	3
55647	1	81	3	98	.1	19	22	859	6.84	50	5	ND	2	253	1	2	2	71	2.71	.021	4	7	1.97	538	.01	3	.66	.03	.11	1	1
55648	1	62	3	77	.1	25	19	786	4.70	39	5	ND	1	311	1	2	2	124	5.22	.029	5	19	2.73	45	.01	8	.66	.01	.03	1	1
55649	1	68	3	69	.2	20	11	479	3.42	59	5	ND	2	297	1	2	2	33	3.45	.014	5	9	1.74	561	.01	5	.55	.08	.12	1	7
55650	1	67	3	85	.1	25	19	807	5.47	42	5	ND	3	235	1	2	2	123	3.50	.016	5	19	2.40	65	.01	4	.61	.01	.02	1	1
91674	1	46	2	67	.1	15	10	650	3.87	35	5	ND	1	432	1	2	2	54	7.38	.011	3	8	3.30	65	.01	2	.46	.01	.05	1	3
91675	1	39	2	64	.3	12	12	669	4.03	19	5	ND	2	387	1	2	2	49	8.11	.009	4	9	3.51	215	.01	6	.44	.01	.09	1	1
91676	1	64	4	90	.1	17	14	1647	4.81	179	5	ND	1	406	1	2	2	78	7.81	.034	4	10	3.61	73	.01	3	.62	.01	.04	1	17
91677	1	9	2	27	.3	4	3	540	2.36	55	5	ND	2	585	1	3	2	25	9.57	.017	2	6	4.06	49	.01	15	.61	.01	.04	2	1
91678	1	6	8	41	.1	5	5	301	1.67	2468	5	ND	2	173	1	46	2	12	3.92	.024	4	3	1.77	20	.01	16	.38	.01	.07	1	1
91679	1	21	10	50	.3	6	5	631	2.43	380	5	ND	2	281	1	2	2	22	8.28	.028	5	5	3.38	63	.01	15	.41	.01	.07	2	1
91680	1	55	6	64	.3	28	15	557	4.50	1910	5	ND	3	143	1	191	2	52	5.45	.025	8	23	1.21	250	.01	11	1.72	.01	.11	1	2
91681	1	10	13	40	.1	5	4	586	1.70	235	5	ND	1	255	1	2	2	14	5.75	.019	8	2	1.64	64	.01	8	.30	.01	.07	1	1
91682	1	42	7	83	.2	25	16	1203	4.73	45	5	ND	2	187	1	2	3	31	5.47	.061	9	12	1.63	80	.01	8	.73	.01	.13	1	1
91683	1	31	6	59	.2	14	11	624	3.54	97	5	ND	2	424	1	2	2	56	7.87	.033	5	11	3.73	40	.01	2	.50	.01	.03	1	1
91684	1	44	3	56	.2	17	10	614	3.33	70	5	ND	1	372	1	2	2	31	7.09	.039	6	9	3.26	78	.01	2	.51	.01	.07	1	1
91685	3	54	6	56	.1	16	11	572	3.87	694	5	ND	1	422	1	2	2	21	4.14	.015	3	5	1.35	63	.01	2	.77	.01	.08	1	2
91686	3	48	4	65	.4	9	8	727	3.38	173	5	ND	2	661	1	2	2	50	9.14	.057	3	7	2.15	83	.01	5	.45	.01	.06	1	1
91687	1	34	5	44	.2	7	5	535	2.31	168	5	ND	1	1142	1	2	2	33	18.65	.017	2	7	1.44	73	.01	8	.27	.01	.04	3	1
91688	1	32	4	71	.1	13	11	687	4.11	100	5	ND	2	263	1	3	2	67	4.79	.039	4	12	2.39	405	.01	5	.49	.01	.05	1	1
91689	1	46	4	77	.1	24	14	783	4.47	36	5	ND	2	150	1	2	2	73	3.56	.045	7	20	2.27	38	.01	2	.48	.01	.03	1	3
91690	1	49	4	78	.1	27	15	320	4.27	341	5	ND	1	242	1	3	2	45	4.46	.049	3	19	2.08	60	.01	3	.48	.01	.06	1	37
91691	1	68	7	85	.1	28	17	738	4.61	126	5	ND	2	179	1	2	2	39	2.90	.050	4	12	1.58	67	.01	3	.49	.01	.09	1	14
91692	1	53	4	81	.1	26	15	881	4.77	51	5	ND	1	152	1	2	2	45	2.64	.077	5	15	1.91	83	.01	4	.50	.02	.08	1	3
91693	1	72	5	79	.3	24	15	869	4.46	74	5	ND	2	149	1	2	2	40	3.39	.065	5	12	2.05	130	.01	7	.47	.01	.11	1	1
91694	2	73	9	89	.4	35	19	622	5.21	75	5	ND	3	182	1	2	2	46	2.88	.055	4	18	1.72	59	.01	6	.50	.01	.10	2	2
91695	1	34	10	57	.6	14	11	1038	4.11	469	5	ND	2	193	1	2	2	35	5.51	.015	4	7	2.03	77	.01	2	.36	.01	.09	1	470
91696	1	9	4	56	.3	8	8	748	3.05	22	5	ND	2	151	1	2	2	38	4.39	.021	5	7	1.80	90	.01	9	.37	.01	.07	1	2
91697	1	71	6	84	.2	31	17	480	3.17	122	5	ND	1	266	1	3	2	36	3.17	.029	6	8	1.53	509	.01	3	.44	.01	.10	1	2
91699	1	33	24	76	.4	5	4	689	2.23	209	5	ND	1	284	1	2	2	17	6.21	.020	7	5	2.36	34	.01	2	.33	.01	.05	1	1
STD C/AU-R	19	58	36	132	6.6	66	28	1045	4.02	41	19	7	36	47	17	16	19	56	.48	.082	38	56	.93	172	.06	32	1.74	.06	.14	14	520

## CANAMIN RESOURCES FILE # 88-2014

Page 3

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Tl	B	Al	Na	K	W	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB
91699	1	56	5	65	.1	16	11	1160	3.50	927	5	ND	1	160	1	2	2	64	3.85	.046	10	12	1.56	56	.01	3	.56	.01	.11	1	1
91700	1	47	2	62	.2	24	14	975	4.65	284	5	ND	1	167	1	3	2	45	7.91	.046	7	15	3.64	357	.01	4	.49	.01	.07	1	4

## GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN PB CA P LA CR NG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 \* SAMPLE TYPE: P1 ROCK P2 CORE AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUN 16 1988

DATE REPORT MAILED: June 23/88

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

CANAMIN RESOURCES PROJECT-MAD File # 88-2017 Page 1

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tb	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*	
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM	
A-1	1	865	9	1176	2.2	18	36	437	5.94	9563	6	6	2	114	12	328	3	16	1.53	.060	3	2	.21	162	.01	10	.45	.01	.31	1	2110	-
A-2	1	183	2	183	.5	20	19	358	2.78	1472	5	ND	2	131	1	97	2	19	2.62	.062	2	3	.30	361	.01	11	.44	.01	.24	2	215	-
A-3	1	105	2	174	.2	23	17	491	3.84	1175	5	ND	1	149	1	77	2	18	3.21	.077	3	3	.41	50	.01	11	.43	.01	.23	1	35	-
A-4	1	373	6	147	.5	21	20	428	4.77	13591	5	ND	1	135	1	348	5	18	2.87	.058	3	2	.58	68	.01	12	.40	.01	.20	1	600	-
A-5	1	174	4	76	.4	17	21	778	6.25	1021	5	ND	2	104	1	46	2	66	3.09	.068	5	6	1.04	51	.01	22	.86	.01	.16	1	22	-
A-6	1	317	4	265	.4	25	22	461	4.63	5915	5	ND	1	119	1	168	2	23	1.02	.044	3	3	.20	58	.01	14	.40	.01	.23	1	157	-
A-7	1	116	14	428	.4	23	19	598	4.32	18850	5	ND	2	135	3	442	2	26	3.37	.061	2	4	.73	47	.01	10	.42	.01	.22	1	70	-
A-8	1	155	5	106	.4	18	16	821	5.09	2631	5	ND	2	133	1	112	2	52	3.04	.032	4	6	.35	99	.01	9	.50	.01	.12	1	107	-
A-9	1	464	4	137	.6	16	28	485	4.15	7014	6	ND	1	220	2	85	2	25	2.74	.069	5	3	.21	60	.01	16	.49	.01	.22	1	940	-
A-10	1	420	2	1639	.3	19	17	502	3.82	1081	5	ND	1	115	11	26	2	19	3.74	.087	4	3	.59	64	.01	13	.45	.01	.30	1	118	-
A-11	1	239	6	201	.3	24	25	421	3.14	2436	5	ND	1	223	1	133	21	22	3.29	.067	2	2	.27	260	.01	12	.48	.01	.20	1	360	-
A-12	2	266	6	77	1.2	24	19	416	4.49	6713	5	ND	2	125	1	159	2	25	1.96	.083	2	4	.43	96	.01	15	.44	.01	.25	1	305	-
EM-104	1	277	2	56	.5	14	17	1516	5.98	17036	8	ND	2	474	1	7	2	95	8.70	.038	5	11	3.75	74	.01	9	.50	.01	.01	2	4	-
EM-104A	1	80	3	51	.1	19	15	810	4.11	147	5	ND	1	174	1	2	2	79	2.31	.072	6	12	1.16	117	.07	9	1.41	.08	.11	2	3	-
EM-104B	1	74	2	64	.5	20	16	1036	4.84	195	7	ND	3	304	1	2	2	82	4.13	.066	7	12	1.61	89	.03	14	1.33	.09	.10	2	1	-
EM-104C	1	63	2	75	.4	19	17	1469	6.33	105	9	ND	3	263	1	2	2	106	2.89	.071	10	14	1.25	65	.01	14	1.33	.07	.07	2	1	-
1478A	4	125	32	46	.6	22	15	746	5.00	6273	6	ND	4	315	1	5	2	93	3.85	.059	9	22	1.88	129	.01	10	.96	.02	.39	2	235	-
1478B	24	1069	2	15	.2	16	28	605	5.15	85	5	ND	1	177	1	2	2	34	2.96	.021	4	6	1.20	23	.01	3	.26	.01	.06	1	8	-
12532	1	522	4	281	.4	23	24	643	8.43	161	5	ND	1	53	1	2	11	40	1.30	.054	6	9	.28	39	.01	11	.50	.01	.29	1	113	-
12533	1	148	2	1017	.1	16	14	463	3.19	460	5	ND	1	178	6	4	2	30	2.60	.066	4	3	.84	188	.01	23	.66	.01	.30	1	163	-
12534	1	234	3	132	.1	21	20	392	3.16	611	5	ND	1	210	1	3	2	35	2.20	.072	2	4	.60	71	.01	24	.72	.01	.25	1	138	-
12535	1	206	5	130	.3	20	18	530	3.86	739	5	ND	1	242	1	7	2	34	4.78	.075	3	4	1.09	71	.01	27	.65	.01	.22	1	124	-
12536	1	266	4	302	.2	21	22	739	6.35	1140	6	ND	1	109	1	2	2	57	3.41	.070	5	7	.67	74	.01	17	.74	.01	.20	1	165	-
12537	1	323	5	234	.4	27	22	472	4.50	384	5	ND	1	149	1	13	2	40	3.02	.061	3	7	.36	67	.01	21	.63	.01	.25	1	480	-
12538	1	2069	3	1711	2.9	19	26	410	7.61	33828	6	7	1	163	11	9	2	23	3.42	.051	2	3	.51	36	.01	13	.51	.01	.26	1	9910	-
12539	3	571	3	243	.6	29	32	572	5.37	3750	5	ND	1	148	1	20	2	26	1.81	.099	4	4	.48	66	.01	15	.51	.01	.24	1	955	-
12540	1	299	6	476	.2	27	26	373	3.64	953	6	ND	1	296	1	53	2	26	1.01	.096	3	2	.19	66	.01	19	.55	.01	.22	1	240	-
12541	1	161	5	41	.4	15	16	506	3.09	533	5	ND	2	210	1	85	2	23	2.46	.143	2	2	.44	46	.01	18	.58	.01	.28	2	45	-
12542	1	193	2	130	.1	17	12	666	4.31	37	5	ND	1	88	1	2	2	39	2.32	.065	9	5	.38	72	.01	14	1.15	.05	.19	1	26	-
12543	1	1311	3	2747	1.0	17	23	409	8.76	23622	5	2	1	134	13	69	4	24	.54	.047	3	3	.19	64	.01	13	.49	.01	.26	1	4250	-
12544	1	241	2	130	.1	30	23	734	5.55	320	5	ND	1	70	1	2	3	38	2.24	.078	5	9	.39	57	.01	10	.65	.01	.22	1	37	-
12545	1	100	3	107	.2	17	17	521	3.63	1528	5	ND	1	230	1	55	2	31	2.85	.037	2	3	.82	45	.01	10	.56	.01	.15	1	38	-
12546	1	1255	2	2190	1.5	15	21	293	5.99	6687	5	3	1	154	13	39	2	27	.76	.032	2	3	.24	74	.01	13	.47	.01	.19	1	3610	-
STD C-AU-R	18	59	38	132	6.9	69	29	1071	4.04	43	24	8	27	49	18	17	19	58	.49	.085	40	58	.95	179	.07	38	1.77	.07	.16	14	520	-

## CANAMIN RESOURCES PROJECT-MAD FILE # 88-2017

Page 2

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tl	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Tl	B	Al	Na	K	W	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM
12547	3	110	30	86	.3	24	21	508	7.76	85	5	ND	1	139	1	3	2	26	1.01	.049	8	6	.84	17	.01	12	.41	.01	.07	1	30
12548	1	12	7	58	.1	7	8	676	2.69	85	5	ND	1	126	1	2	2	30	3.36	.038	6	7	1.35	41	.01	12	.41	.01	.06	1	13
12549	1	7	6	48	.3	6	7	722	2.76	42	5	ND	1	188	1	3	2	34	3.91	.036	5	6	1.50	42	.01	26	.38	.02	.07	3	2
12550	2	63	8	78	.1	19	13	646	4.50	370	5	ND	1	208	1	3	2	60	3.97	.054	3	14	2.00	47	.01	24	.54	.01	.07	1	1
12551	1	78	4	86	.2	29	18	751	4.68	80	5	ND	1	134	1	2	2	49	3.27	.117	7	17	1.83	73	.01	17	.60	.02	.09	2	1

APPENDIX 4

DRILL LOGS

Drill con is stored at the camp site ~ 2 km  
rest of drill hubs



Metres.		DESCRIPTION	SAMPLE NO.	...metres.... Core			RECOV.	Afl. oz/T	Au. PPB	AS. PPM			
FROM	TO			FROM	TO	WIDTH							
29.1	30.72	FELDSPAR PORPHYRY.					95%						
(95.5	100.8)	As in 16.15 to 21.79M											
30.72	38.68	SEDIMENTARY UNIT.					95%						
100.8	126.9	Sandstone, unaltered grey-green to 33.5M, then progressively more silty, and slightly altered to an argillaceous base banded from 35° to 50°. Bottom contact at 40°. Narrow quartz-carbonate breccia zone at 35.96M.											
38.68	57.76	QUARTZ FELDSPAR PORPHYRY.					95%						
(126.9	189.5)	Weakly bleached and changes to an unaltered porphyry with local yellow-green stain at 47.95M. Bleached zones with quartz-carbonate veins in brown mottled areas at 41.45 to 47.8M and 51.8 to 53.6M. Traces of fine grained pyrite ± arsenopyrite. Bottom contact area has strong carbonate banding at 60° over 0.15 metres to 57.91 M.	1484	56.0	57.0	1.00			1	127			
			1485	57.0	58.0	1.00			3	355			
57.91	122.2	SEDIMENTARY UNIT.											
(190.0	401')	Gradational series as above cut by scattered veins of Quartz-carbonate. Variations as noted.											
		57.91-60.35M. Siltstone. Dark grey: Beds at 35°.	1486	61.72	62.72	1.00	95%		2	106			
		60.35-61.42M. Sandstone. Grey and silty.	1487	62.72	63.76	1.04	95%		1	35			
		61.42-64.31M. Siltstone. Increasingly argillaceous with beds at 35°. Quartz-carbonate veins & vein breccias.					95%						
		64.31-65.84M. Sandstone.					99%						
		65.84-68.73M. Siltstone as in 61.42-64.31M. Beds at 45°. Section has 30% dark argillaceous layers. Traces of pyrite and chalcopyrite. Top contact broken and limonitic.											
		68.73-73.3M Sandstone, locally coarse grained with increasing argillaceous content. Vuggy. 25° quartz-carbonate vein					90%						
		73.30-79.25M. Argillaceous siltstone. Local 35° argillite beds to 0.67M. Argillite is locally sheared at 25°, slightly graphitic, with increase in disseminated and fracture pyrite.					90%						





Metres.		DESCRIPTION	SAMPLE NO.	...metres....				Core				
FROM	TO			FROM	TO	WIDTH	RECOV.	AU. oz/T	AU. PPB	AS. PPM		
136.76	141.12	<u>QUARTZ-CARBONATE.</u>	91551	136.76	137.76	1.00	95%		1	65		
		Buff to white. Brittle. Local coarse calcite. Irregular black fractures. Minor pyrite. Bottom resembles a highly altered sedimentary rock. Section grades to:	91552	137.76	138.76	1.00			1	54		
			91553	138.76	139.76	1.00			8	53		
141.12	144.6	<u>QUARTZ FELDSPAR PORPHYRY.</u>	91554	139.76	140.76	1.00	90%		2	353		
(463	474.5)	Very highly altered. Pale grey, riddled with fine black fractures. Locally brecciated. Bottom contact broken with granitic argillite.	91555	140.76	141.76	1.00			1	252		
			91556	141.76	142.76	1.00			36	1683		
144.6	147.01	<u>SEDIMENTARY UNIT.</u>	1496	142.76	143.76	1.00	90%		15	367		
(474.5	482.5)	Argillite. Broken and graphitic at top. Crude irregular 50° to 70° beds, and up to 10% sandstone. In to 1% pyrite, mainly as blebs in bedding.	1497	143.76	144.63	0.87			1	38		
			1493	144.63	145.63	1.00			1	78		
147.01	148.13	<u>QUARTZ FELDSPAR PORPHYRY. ?</u>					95%					
482.5	486.0	Texture resembles highly altered sandstone. Small argillite zone at 147.22M. Up to 2% disseminated pyrite with trace of arsenopyrite.										
148.13	149.2	<u>SEDIMENTARY UNIT.</u>	1494	148.44	149.2	0.76	90%		1	85		
(486	489.5)	Argillite. Dark grey, black to graphitic and grading to sandstone at base. Pyrite locally in 50° bands. Bottom contact at 60°	1495	149.2	150.57	1.37			1	160		
149.2	150.5	<u>QUARTZ FELDSPAR PORPHYRY. ?</u>					50%					
489.5	494.0	Very highly altered. Abundant black fractures as above 144.63. Section is broken and crushed with fragments of quartz and quartz-carbonate.										
150.57	170.9	<u>SEDIMENTARY UNIT.</u>										
494.0	560.8	150.57-152.80M. Argillite, gradational to sandstone. Reds at 75° to 80°. Minor sedimentary ? breccia. Scattered quartz-carbonate veins. 152.80-154.23M. Sandstone. Massive, unaltered with minor argillaceous layers. Trace of pyrite.					95%					
							100%					

Metres.		DESCRIPTION	SAMPLE NO.	...metres.... Core				Au. oz/T	Au. PPB	AS. PPM			
FROM	TO			FROM	TO	WIDTH	RECOV.						
150.57	170.9	154.23-156.67M. Siltstone. 15% argillaceous layers at 70°	1498	161.37	162.37	1.00		1	108				
		156.67-163.37M. Sandstone. Weakly altered with minor Py. Silty banded section at 70°; and strong 35° quartz-carbonate-pyrite fracture.	1499	162.37	163.37	1.00	95%	1	49				
			91559	163.37	164.11	0.74		153	589				
		163.37-170.93M. Argillite grading at 164.1M to silty sandstone with about 15% argillite.	91560	164.11	164.85	0.74	90%	3	52				
		grading to argillite at 167.52M. Section is locally sheared and graphitic, and contains grey sandstone layers at 168.76	91561	164.85	165.85	1.00		2	60				
		to 169.16M and at 170.69.	91562	165.85	166.85	1.00		9	78				
		-Section is locally well veined with quartz and quartz-carbonate around which the sedimentary rocks (mainly sandstone) are locally mineralized with up to 4% arsenopyrite and minor pyrite. The strongest veins are at: 167.03M at 40°; 168.76 at 0° to 70°; and 165.66 at 30°.	91563	166.85	167.52	0.67		0.101	3450	32498			
		At 167.52M a 7 cm sill of quartz feldspar porphyry is present with dissem. pyrite.	91564	167.52	168.15	0.63		119	679				
			91565	168.15	168.77	0.62		23	341				
			91557	168.77	169.77	1.00		0.125	4285	32032			
			91558	169.77	170.93	1.16		215	378				
			1500	170.93	171.93	1.00		2	31				
170.93	186.45	<u>QUARTZ FELDSPAR PORPHYRY.</u>	55641	171.93	172.93	1.00	98%	5	27				
(560.86)	(11.71)	Medium to coarse grained, Pale to buff grey. Strong quartz-carbonate-pyrite zone at 176.17 below which the intrusive is more highly altered to 184.1M. Scattered quartz-carbonate-pyrite fractures. Bottom section is pitted and calcareous. Trace to 1% finely disseminated pyrite with minor arsenopyrite?. Section locally limonitic.	12548	172.93	173.93	1.00		13	85				
			12549	173.93	174.93	1.00		2	42				
			55542	174.93	175.93	1.00		20	145				
186.45	203.3	<u>SEDIMENTARY UNIT.</u>											
611.7	667.0	186.45-186.99M. Argillite. Graphitic and sheared with crushed quartz-carbonate veining					95%						
		186.99-187.76M Siltstone. Grey to brown. Beds at 70°					95%						
		187.76-191.72M Sandstone. Unaltered.					95%						
		191.72-194.77M. Conglomerate. 20% rounded fragments of argillite, quartz and pink felsic rock to ±2 cm. 0° to 10° quartz-carbonate fractures. Bottom contact at 40°					95%						

Metres.		DESCRIPTION	SAMPLE NO.	...metres.... Core				Au. PPB	AS. PPM			
FROM	TO			FROM	TO	WIDTH	RECOV.					
186.45	203.3	194.77-203.3M Siltstone. Dark grey to pale grey. Bedding is 40° at top, 70° and irregular in the centre and poorly bedded with a pinkish cast to 201.77M. Weakly sheared at 50° at 197.5M. Section cut by numerous white quartz-carbonate fractures at 0° to 75°. Minor pv. fractures. Core locally well broken.	91566	194.0	195.0	1.00	95%	17	59			
203.3	205.28	<u>FELDSPAR PORPHYRY.</u> Pink and mottled grey. Siliceous with up to 0.5% pyrite. Minor quartz-carbonate veins.	55643	198.5	199.5	1.00	95%	4	46			
205.28	211.53	<u>SEDIMENTARY UNIT.</u> 205.28-207.42M Sandstone. Argillaceous beds at top at 60° Top section soft and sheared at steep angle					98%					
		207.42-208.03M Argillite. Sheared and granitic at top, silty and bedded at bottom.	91567	202.0	203.0	1.00	95%	1	66			
		208.03-208.79M Sandstone, medium grained, locally strong 40° quartz-carbonate veins. Bottom contact at 35° but is offset by later fractures.	91568	203.0	204.0	1.00	95%	1	43			
			91569	204.0	205.28	1.28		1	27			
		208.79-209.24M Argillite. Sheared and granitic with minor quartz-carbonate fragments. Bottom contact at 30°.					100%					
		209.24-211.53M Argillaceous Siltstone, with narrow (±1/3M) quartz feldspar porphyry sill? at 210.3M.					±90%					
		Section is increasingly broken, sheared, and veined by quartz-carbonate.										
211.53	212.69	<u>QUARTZ FELDSPAR PORPHYRY.</u>					95%					
(694'	697.8)	Buff, highly altered, siliceous and fine grained with local disseminated pyrite. Pyrite also in fractures. Bottom contact about 60°.										
212.69	222.2	<u>SEDIMENTARY UNIT.</u> 212.69-220.0M Sandstone. Gradational to granitic argillite with a narrow altered porphyry sill, 70°					90%					

Metres.		DESCRIPTION	SAMPLE NO.	...metres.... Core				Au. oz/T	Au. PPB	AS. PPM			
FROM	TO			FROM	TO	WIDTH	RECOV.						
212.69	222.2	212.69-220.0M Continued. to core axis from 214.27 to 214.58 M. (The sill is pale grey and relatively soft Section is commonly soft, gougy and highly sheared at 40° to 60° and locally 20°; and in places veined by strong Qtz-carbonate fractures from 5° to 70°.	55644	213.97	214.58	0.61		4	25				
		220.0-222.2M Sandstone. Grades to bedded argillite at 35° to 40° that is locally sheared. Non-sheared sections cut by quartz-carb. veins at 40° to 60°. Minor dissem. Pyrite.	55645	217.0	218.0	1.00	95%	2	55				
			91674	218.0	219.0	1.00		3	35				
			91675	219.0	220.0	1.00		1	19				
222.2	222.93	<u>QUARTZ FELDSPAR PORPHYRY ?</u>					85%						
(729.0)	(731.4)	Highly altered, locally resembles altered sedimentary rocks. Top contact irregular with sheared argillite. Bottom contact sheared at about 60°. Fine dissem. pyrite.	55646	222.2	222.93	0.73		3	17				
			55647	223.81	224.81	1.00		1	50				
222.93	243.8	<u>SEDIMENTARY UNIT.</u>											
(731.4)	-800'	222.93-226.47M Argillite, gradational to sandstone. Common- ly highly sheared at 0° to 15° or at 50°-35° bedding at 224.9M. Quartz-carbon- ate veining locally strong along core.					95%						
		226.47-231.92M Sandstone. Locally argillaceous and sheared Crude 20° bedding. 20° to 30° quartz-carbon- ate fractures. Trace of pyrite.					95%						
		231.92-233.17 Argillite grading to siltstone. Section is locally graphitic and strongly sheared at ±65°.	55648	229.06	230.28	1.22	95%	1	39				
		233.17-237.35M Sandstone. Locally argillaceous and silty, and sheared at -60°. Section is less alter- ed but has scattered quartz-carbonate fractures at steep angles or at 40°.					95%						







Metres.		DESCRIPTION	SAMPLE NO.	...metres....			Core							
FROM	TO			FROM	TO	WIDTH	RECOV.	AU. oz/T	AU. PPB	AS. PPM				
64.07	82.45	61.87-64.92M. Argillaceous Siltstone. Graphitic at 64.31. Bedding at 50°. Quartz-carbonate fractures.												
		64.92-70.71M Sandstone. Grading to siltstone. Beds at 60° 70.71-72.24M Argillite. Silty. Black to dark grey. Bedded and locally sheared at 60°. Strong quartz- carbonate veins with pyrite and trace asp.	91680	71.24	72.24	1.00			2	1910				
		72.24-75.74M Sandstone. Generally unaltered. Locally coarse and gradational to siltstone.												
		75.74-82.45M Siltstone, Argillaceous and grading to sandstone at base. Bedding 60° to 50° and in places 30°. Dark graphitic shear at 76.81M. Section is locally well broken and contains scattered quartz-carbonate veins+pyrite. Bottom contact at about 25°.												
82.45	88.27	<u>FELDSPAR PORPHYRY.</u>					95%							
(270.5289.6)		As in top section of hole. Weakly bleached. Traces of fine pyrite and arsenopyrite. Local siliceous clots with pyrite and arsenopyrite. Bottom contact at 50°.	91681	86.41	87.41	1.00			1	235				
88.27	93.57	<u>SEDIMENTARY UNIT.</u>					95%							
(289.6307.0)		Sandstone. Increasingly coarse and conglomeratic at base. Unaltered. Bottom argillaceous and bedded at 50°.												
93.57	119.94	<u>SEDIMENTARY UNIT.</u>												
(307.1393.5)		93.57- 103.02M. Argillaceous siltstone grading to sandstone Generally unaltered. Bedding at 45° Broken and graphitic at 97.84M. Scattered quartz-carbonate veins. Disseminated pyrite in argillite.	91682	95.25	96.25	1.00	95%		1	45				
		103.02-112.78M Sandstone. Grey, medium grained. Argill aceous at top and at 104.7 to 106.37M. Mottled brown alteration is associated with steep fractures, quartz-carbonate veins, and banded chalcedony veins at 40°-50°. Mud seam at 111.86M. Increasingly broken at depth					95%							



Metres.		...metres.... Core											
FROM	TO	DESCRIPTION	SAMPLE NO.	FROM	TO	WIDTH	RECOV.	AU. OZ/T	AU. PPB	AS. PPM			
93.57	119.94	<u>SEDIMENTARY UNIT.</u>											
		112.78-119.94M Argillite. Dark grey to black with 25% grey interbedded sandstone. Beds at 45°.	91683	108.66	109.66	1.00	90%		1	97			
		117.35 to 117.95M a 30° banded siliceous zone with pyrite and arsenopyrite.											
		Section broken at top. Bottom contact is sheared and graphitic at 55°.	91684	117.11	118.11	1.00			1	70			
119.94	129.84	<u>QUARTZ FELDSPAR PORPHYRY.</u>					95%						
(393.5)	(425.97)	Moderately altered. Quartz rarely visible. 127.1-127.7M is a zone of sheared graphitic argillite with vuggy quartz carbonate fractures and veins. Section cut by 30° to 60°	91685	126.84	127.84	1.00			2	694			
		quartz-carbonate veins (locally banded) with dark fine grained sulphide. Section broken, brown altered and locally limonitic.	91570	129.84	130.84	1.00			3	95			
129.84	138.84	As Above but decreasingly mottled. Section from 133.5 to 136.2M is cut by dark pyritic fractures and arsenopyrite	91571	130.84	131.84	1.00			4	354			
(425.97)	(455.5)	accompanied by yellow stain. Coarse calcite at 133.5M, and at bottom at 35° that masks contact. Strong ironitic fault zone at 136.5M. after which rock could be a highly altered sediment.	91572	131.84	132.84	1.00			8	338			
			91573	132.84	133.84	1.00			11	960			
			91574	133.84	134.84	1.00			18	1802			
138.84	168.8	<u>SEDIMENTARY UNIT.</u>	91575	134.84	135.84	1.00			3	370			
(455.5)	(555.8)	138.84-148.04M Siltstone. Grading to sandstone at 141.12M. Banding at 50°. Section is highly broken and oxidized along steep fractures.	91576	135.84	136.84	1.00	+80%		4	297			
		Coarse calcite from 138.8-140.82,	91577	136.84	137.84	1.00			1	66			
		Narrow quartz feldspar porphyry sill? at 147.4M. Quartz-carbonate veins as above	91578	137.84	138.84	1.00			5	428			
		pyrite.	91686	138.84	139.84	1.00			1	173			
		148.04-149.81M Argillite. Graphitic with pyrite to 148.4M and grades to argillaceous sandstone.	91687	139.84	140.84	1.00	+90%		1	168			
		149.81-154.65M Sandstone. 50° graphitic argillite partings. Weak quartz-carb. veining. Section well broken along steep fractures.	12550	140.84	141.84	1.00	90%		1	370			
		154.65-156.45M Argillite. Graphitic, and grading locally to a grey silty sandstone.					95%						

Metres.		DESCRIPTION	SAMPLE NO.	...metres....			Core								
FROM	TO			FROM	TO	WIDTH	RECOV.	AU. oz/T	AU. PPB	AS. PPM					
138.84	168.8	<u>SEDIMENTARY UNIT.</u>													
		156.45-157.03 <sup>M</sup> Feldspar Porphyry. Green, highly siliceous mineralized with pyrite & arsenopyrite.	91688	146.98	147.98	1.00	+90%		1	100					
		157.03-157.15 <sup>M</sup> Argillite. Highly silicified.	91579	147.98	148.44	0.46	90%		10	110					
		157.15-162.39 <sup>M</sup> Sandstone Broken argillaceous sections at 159.4 to 159.8 and at 162.0 <sup>M</sup> . Grey porphy sections along core at 161.24-161.54 <sup>M</sup> and in silty section 162.06 to 162.4 containing 2% crystalline pyrite.	12551	148.44	149.44	1.00	95%		1	80					
		Section is cut by several weak and a few strong quartz and quartz-carbonate veins (locally banded) around which arsenopyrite and minor pyrite are disseminated, in places up to ±3%. The strongest veins are at 157.58 <sup>M</sup> at ±30°, 159.7 <sup>M</sup> at ±20° and at 161.85 <sup>M</sup> at ±20°.	91689	153.81	154.81	1.00			3	36					
			91580	154.81	155.60	0.79			4	80					
			91881	155.6	156.36	0.76			5	74					
			91582	156.36	157.15	0.79		0.051	1720	11520					
		162.39-165.44 <sup>M</sup> Argillaceous Sandstone. Black graphitic argillite to 162.6 and from 165.11-165.44 <sup>M</sup>	91583	157.15	158.15	1.00	±75%		93	1080					
		Section is generally well broken, has scattered 10° to 60° quartz-carbonate veins, and 2% to 3% disseminated pyrite.	91584	158.15	158.80	0.65			39	359					
			91585	158.80	159.80	1.00			49	767					
		165.44-168.80 <sup>M</sup> Siltstone. Argillaceous and grading to black argillite from 167.33 to 168.16 <sup>M</sup> .	91586	159.80	160.41	0.61	95%	0.036	1340	23103					
		Section is well pyritized, commonly in ±80° banding. Tr. arsenopyrite. Quartz-carbonate veins as above. Bottom contact in graphitic argillite at ±45°.	91587	160.41	160.80	0.39			170	2561					
			91588	160.80	161.18	0.38			240	3219					
			91589	161.18	162.06	0.88		0.036	1210	10146					
168.8	176.78	<u>QUARTZ FELDSPAR PORPHYRY.</u>	91590	162.06	162.64	0.58	95%	0.015	800	2151					
553.8	579.99	Medium to coarse grained. cf to M88-1. Steep limonitic fractures 172.5 to 175.26 metres after which the feldspars are highly clay altered. Graphitic argillite with pyrite at 169.47 and 169.77 <sup>M</sup> . Contacts. Top 50°, bottom ±30°?	91591	162.64	163.64	1.00			9	165					
		Finely disseminated pyrite with minor arsenopyrite.	91690	163.64	164.64	1.00			37	341					
		Scattered quartz-carbonate veins and fractures.	91691	164.64	165.64	1.00			14	126					
			91692	165.64	166.64	1.00			3	51					
			91693	166.64	167.64	1.00			1	74					
			91694	167.64	168.64	1.00			2	75					
			91695	168.64	169.64	1.00			470	469					





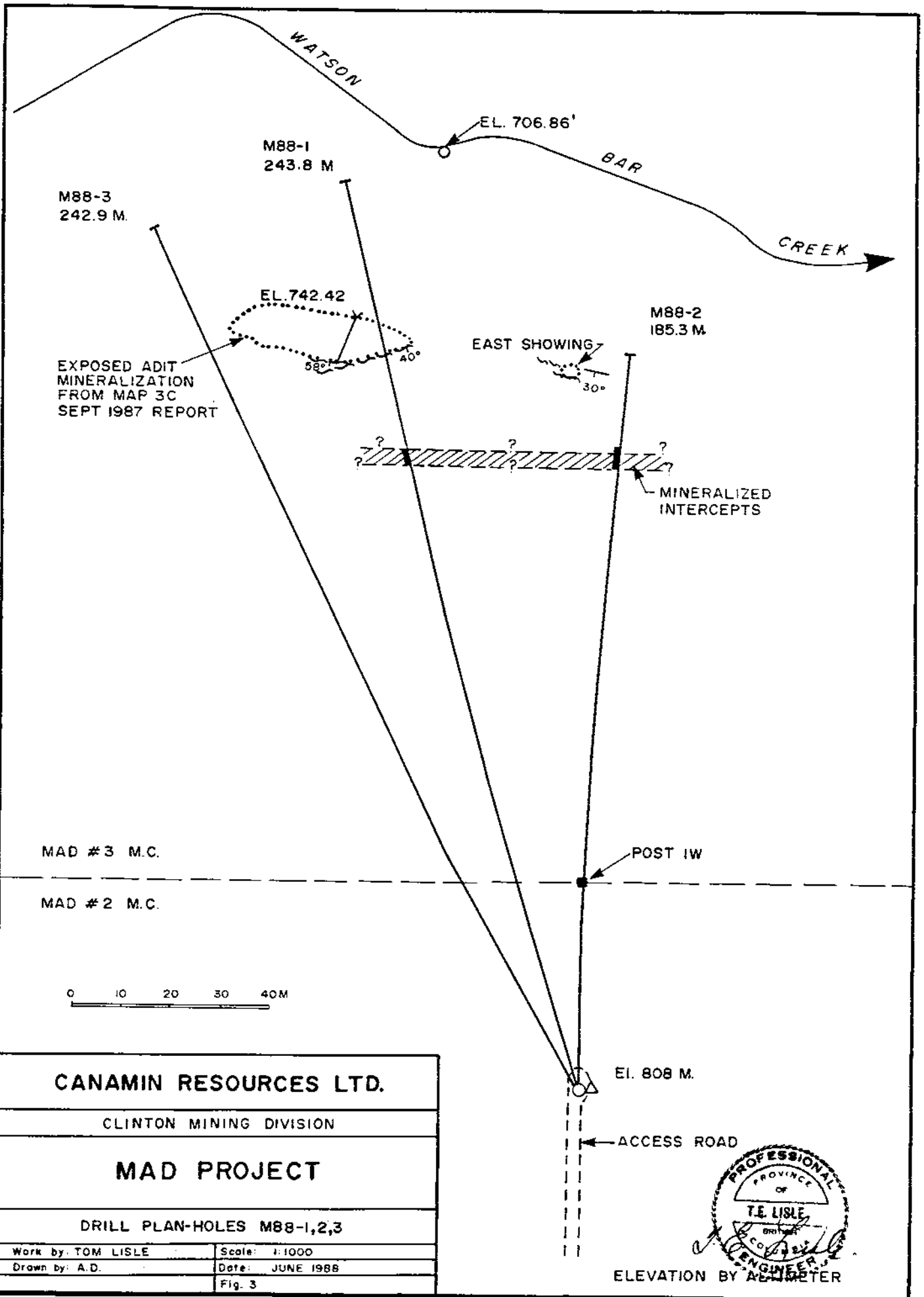
Metres.		DESCRIPTION	SAMPLE NO.	...metres.... Core			RECOV.	Au. oz/T	Au. PPB	AS. PPM			
FROM	TO			FROM	TO	WIDTH							
43.43	60.65	QUARTZ FELDSPAR PORPHYRY.	91592	46.09	47.09	1.00	95%	3	92				
(142.5)	(199.0)	Medium grained with very fine grained sulphide as above Darker sections have altered hornblende crvsts. Bleached adjacent to strong quartz-carbonate zone at 46.63-51.5M, and at 58.5 to 59.4M. Quartz-carbonate is scattered in veins and locally in breccias. Section is commonly limonitic and broken. Bottom contact irregular at 45°											
60.65	129.08	SEDIMENTARY UNIT.					105%						
(199'	423.5)	60.65-72.94M Argillaceous siltstone. Minor interbedded sandstone at 45°. Section is cut by quartz- carbonate veins, with a particularly strong zone with pyrite, arsenonvrite from 63.7 to 64.62, and accompanying yellow stain at 71.3	91700	63.70	64.70	1.00		4	284				
		72.94-76.81M Sandstone, medium to coarse grained. 76.81-97.84M Siltstone, increasingly argillaceous and well banded with 15% sandstone. Bedding varies from 60° at 85M to 40° at 93M, to 70° at 97.8M	91593	71.18	72.18	1.00		1	4773				
		Argillite is locally well broken. It is sheared and granitic at 96.3M (bedded shear Locally strong pyrite fractures 76.81-78.64. Minor sedimentary breccia zone at 93.23M	12513	77.64	78.64	1.00		1	170				
		97.84-102.78 Sandstone. Slightly argillaceous.											
		102.78-106.89 Argillite. Dark grey to black. Minor inter- bedded sandstone at top and siltstone at bottom. 1% pyrite, either disseminated or in quartz-carbonate fractures.											
		106.89-109.73 Sandstone. Massive and grey. Pyrite as above.	12514	105.89	106.89	1.00		2	9				
		109.73-112.47 Argillaceous siltstone. Increasingly argillaceous to bottom. Well bedded at 40° at top but poorly sorted and non-bedded with depth. Pyrite as above.											
		112.47-121.46 Sandstone. Locally argillaceous. Peds at 40° Soft sediment breccias at 113.38 & 114.3.	12515	122.12	123.12	1.00		1	14				
		121.46-129.08 70% argillite interbedded with siltstone and sandstone at depth. Bedding at 45° in to 3% pyrite and traces of arsenonvrite? in argillaceous bands.	12516	128.11	129.11	1.00		1	25				

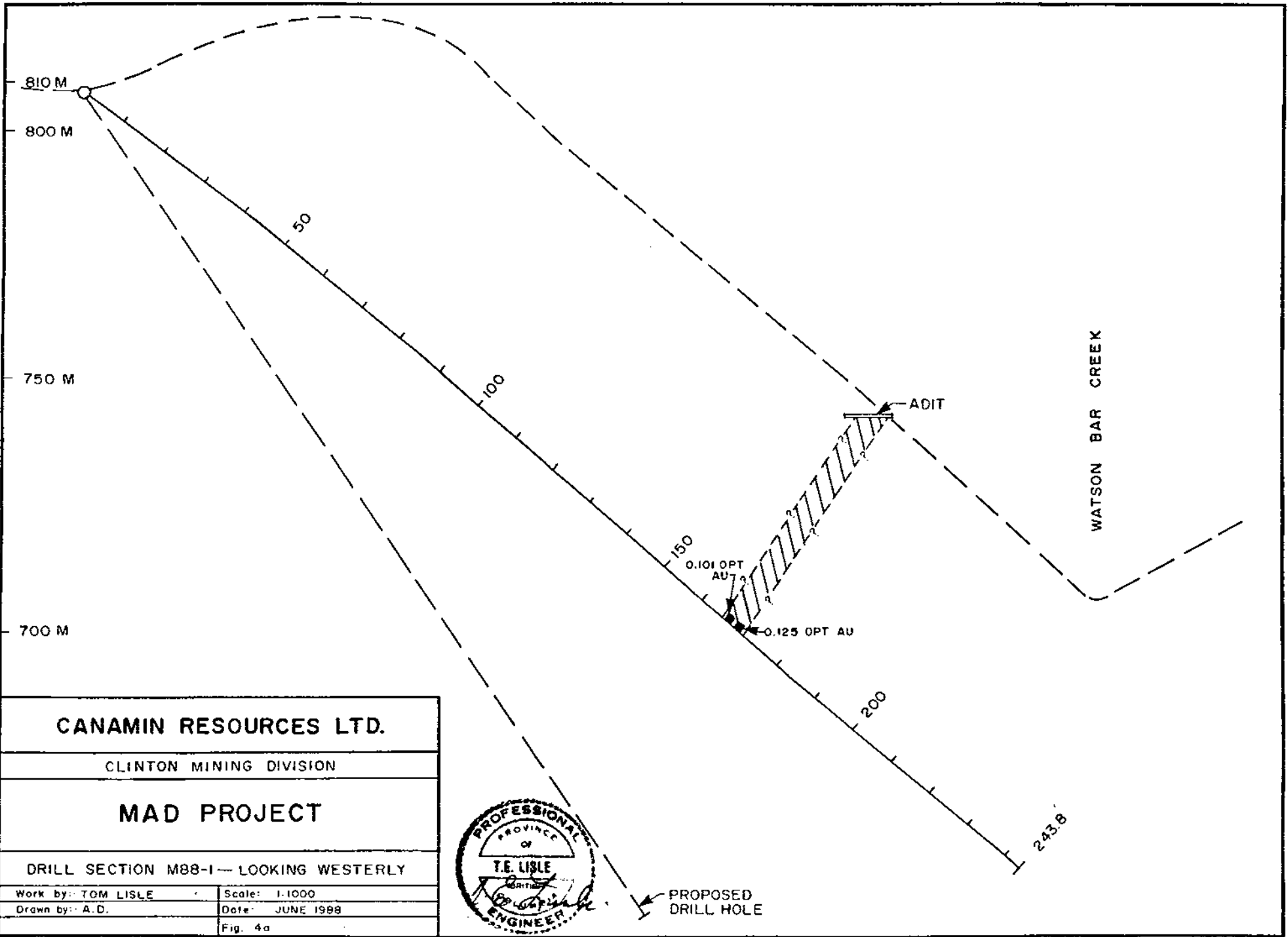




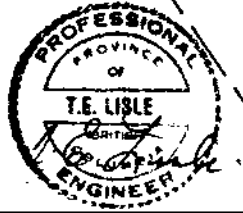




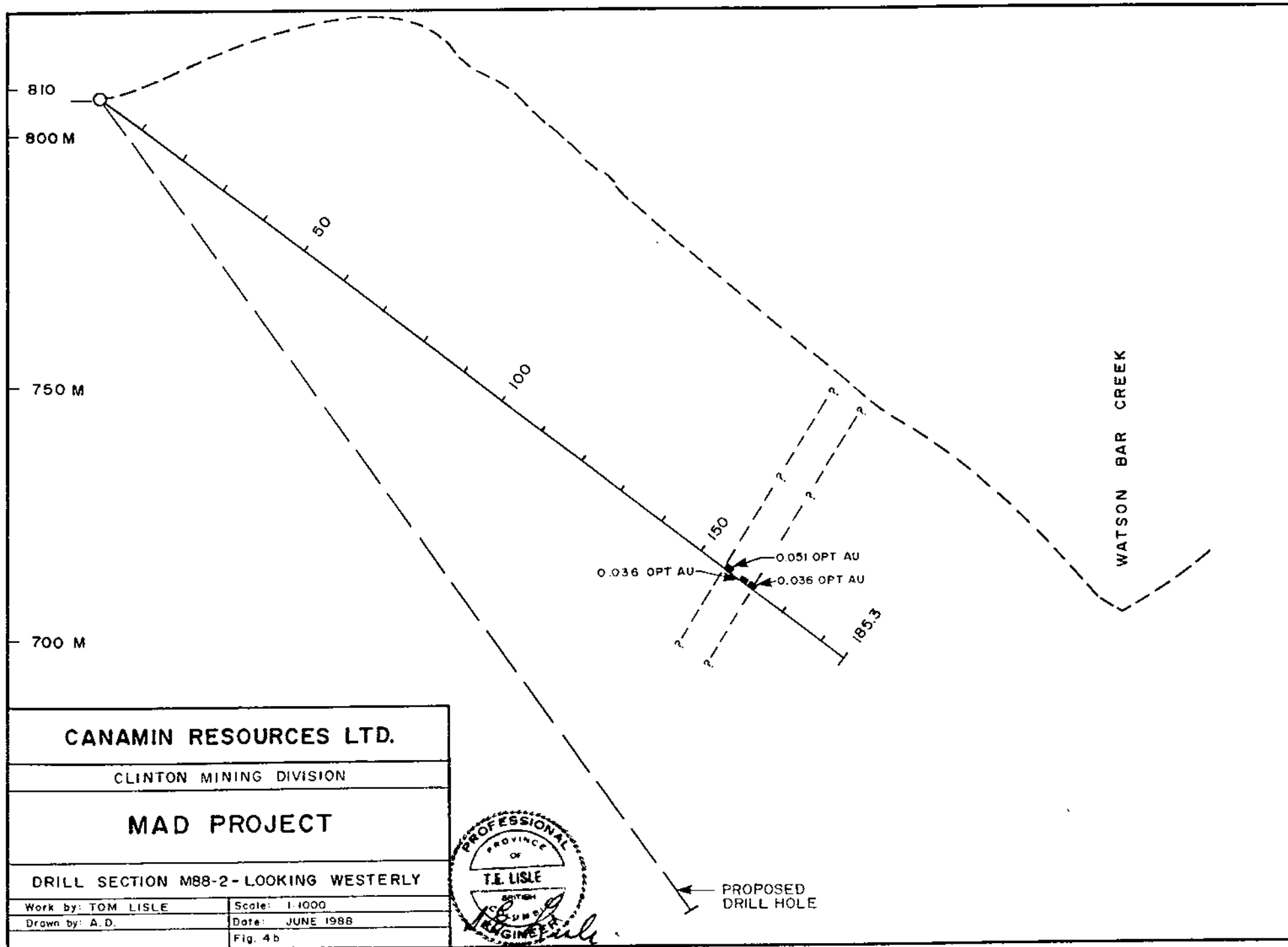


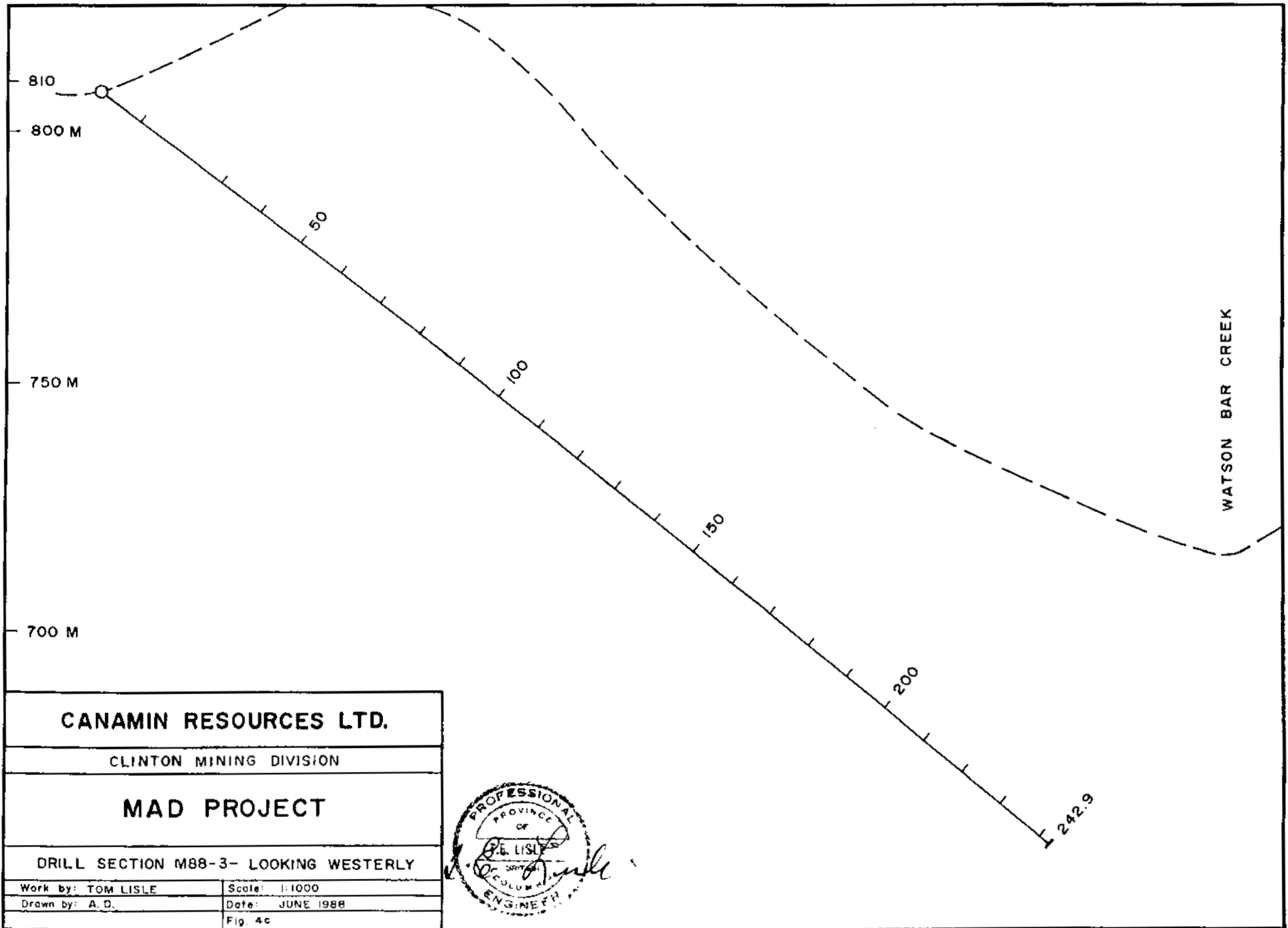


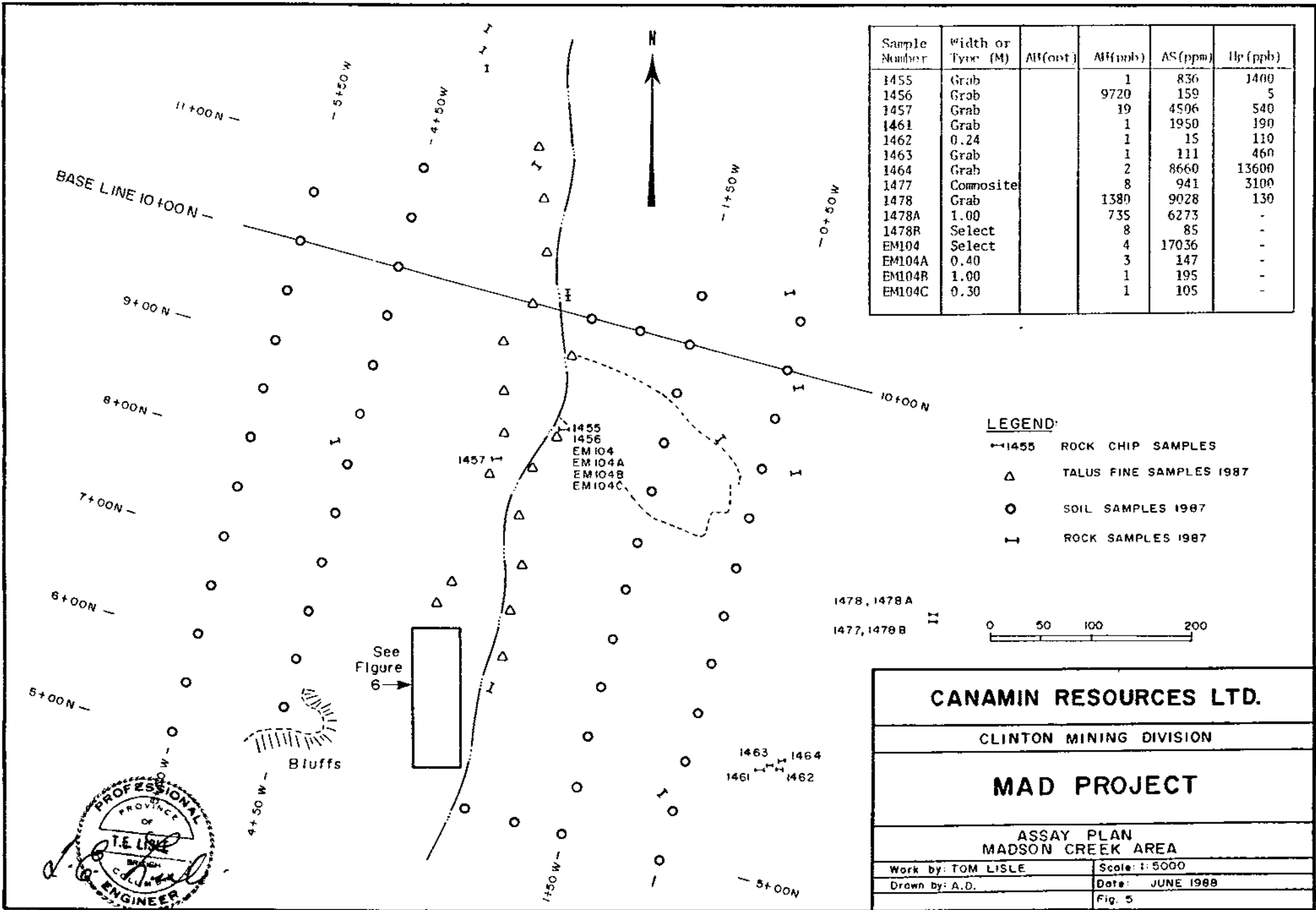
<b>CANAMIN RESOURCES LTD.</b>	
CLINTON MINING DIVISION	
<b>MAD PROJECT</b>	
DRILL SECTION M88-1 -- LOOKING WESTERLY	
Work by: TOM LISLE	Scale: 1:1000
Drawn by: A.D.	Date: JUNE 1998
Fig. 4a	



PROPOSED DRILL HOLE







**CANAMIN RESOURCES LTD.**

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CLINTON MINING DIVISION

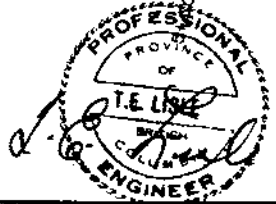
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**MAD PROJECT**

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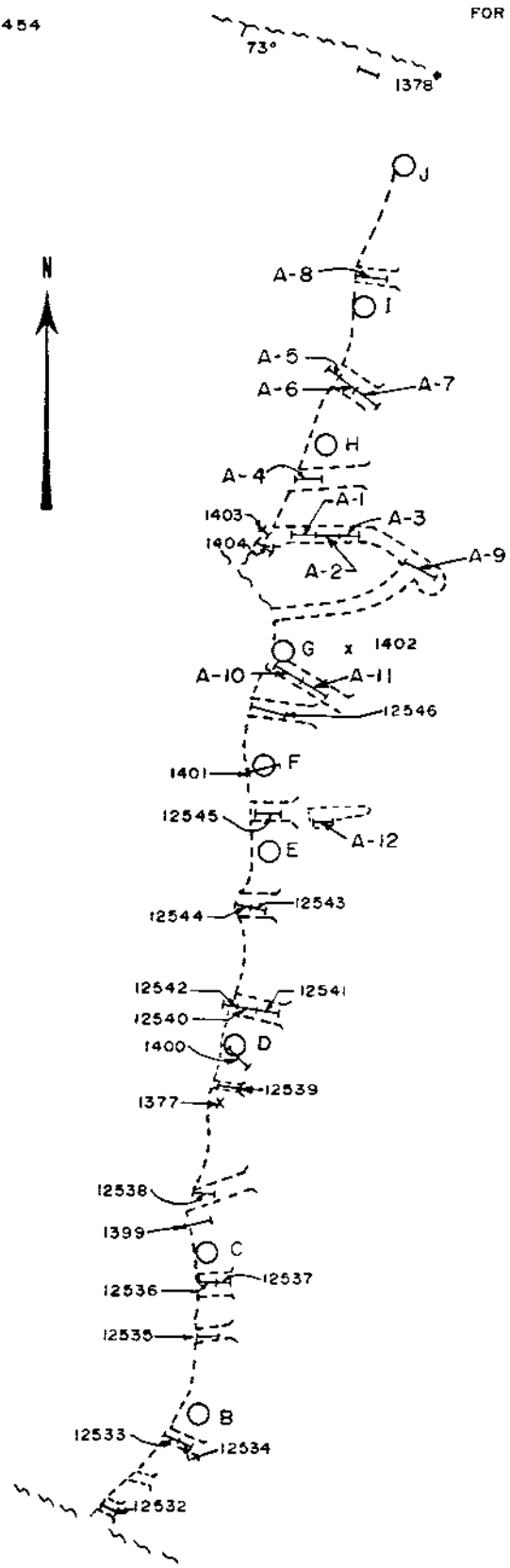
ASSAY PLAN  
MADSON CREEK AREA

Work by: TOM LISLE	Scale: 1:5000
Drawn by: A.D.	Date: JUNE 1988
Fig. 5	



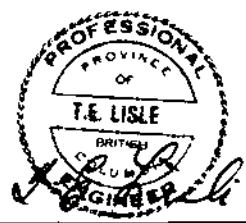
⊗ 1453  
⊗ 1454

SEE 1987 REPORT FIG. 5d  
FOR ADDITIONAL ASSAYS TO NORTH

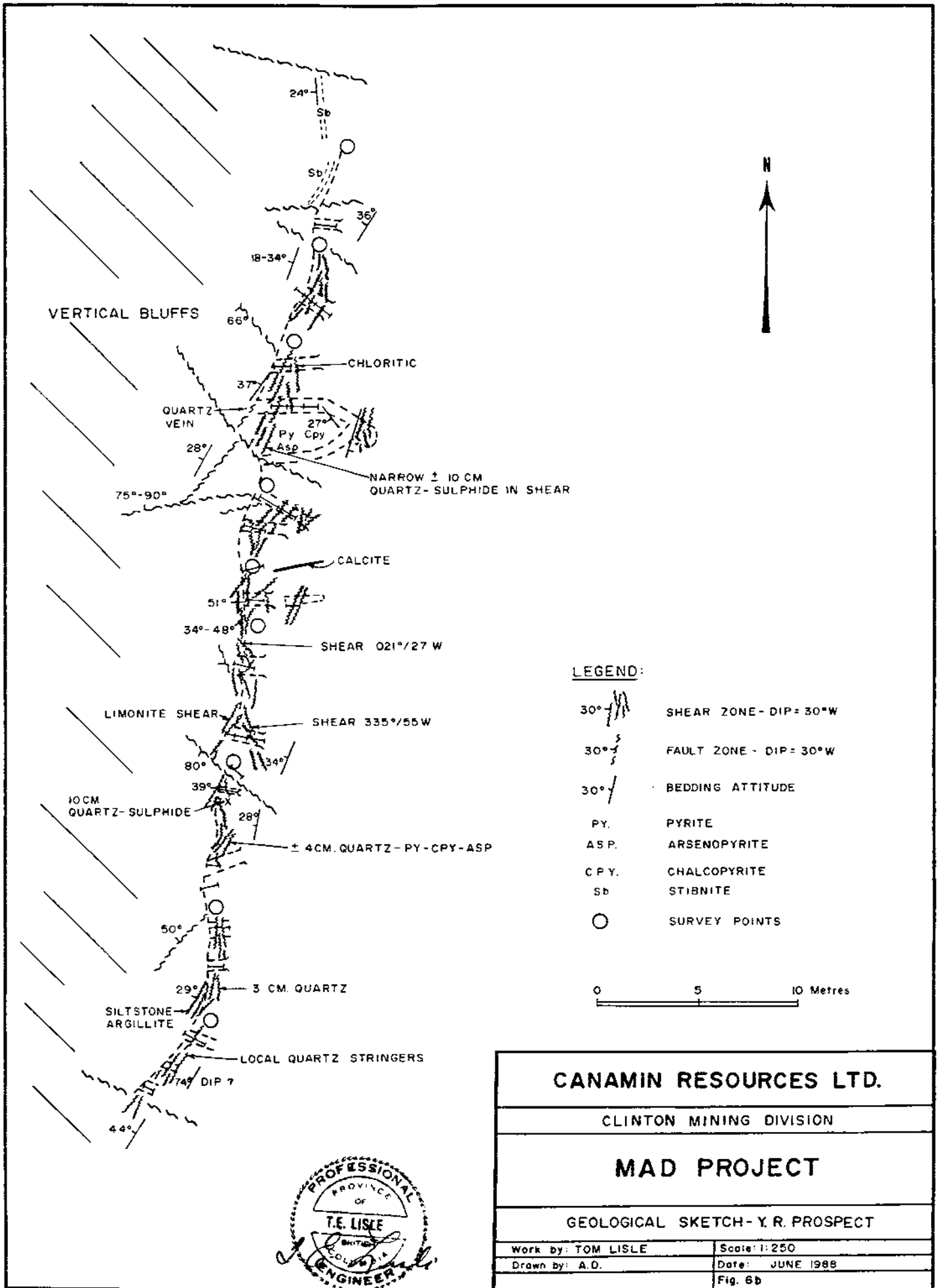


Sample Number	Width (Metres)	Est. True Width (M)	AU(oot)	AU(rob)	As(om)
12532	0.27	0.27		113	161
12533	0.50	0.40		163	460
12534	0.75	0.75		138	611
12535	1.00	0.90		124	739
12536	0.50	0.50		165	1140
12537	0.57	-		480	384
12538	0.77	0.70		9910	53828
12539	0.92	0.90		955	3750
12540	0.70	0.70		240	953
12541	0.80	0.80		45	533
12542	0.80	0.80		26	37
12543	1.10	-		4250	23622
12544	0.60	-		37	120
12545	0.90	0.50		38	1528
12546	1.05	1.00		3610	6687
A 1	1.15	1.10		2110	9563
A 2	1.00	-		215	1472
A 3	1.10	-		35	1175
A 4	1.10	0.70		600	13591
A 5	1.00	1.00		22	1021
A 6	1.10	0.90		157	5915
A 7	1.10	1.10		70	18850
A 8	1.10	1.10		107	2631
A 9	1.50	0.75		940	7014
A 10	1.00	1.00		118	1081
A 11	1.00	1.00		360	2436
A 12	0.85	0.85		395	6713
1453	Grab	-		1	5675
1454	Grab	-		1	6167
1458	0.35	-		1	1780
1459	Grab	-		1	233
1460	Grab	-		1	1444
1377*	0.10	-		15100	27653
1399*	1.00	-		495	666
1400*	1.00	-		10930	7880
1401*	0.80	-		5955	2343
1402*	1.00	-		3005	7173
1403*	1.00	-		820	5463
1404*	0.25	-		27	91
1378*	0.60	-		17	5172
* 1987	Samples				

SAMPLES 1458-1460



<b>CANAMIN RESOURCES LTD.</b>	
CLINTON MINING DIVISION	
<b>MAD PROJECT</b>	
ASSAY PLAN, Y.R. PROSPECT MADSON CREEK AREA	
Work by: TOM LISLE	Scale: 1:250
Drawn by: A. D.	Date: JUNE 1988
Fig: 6a	



**LEGEND:**

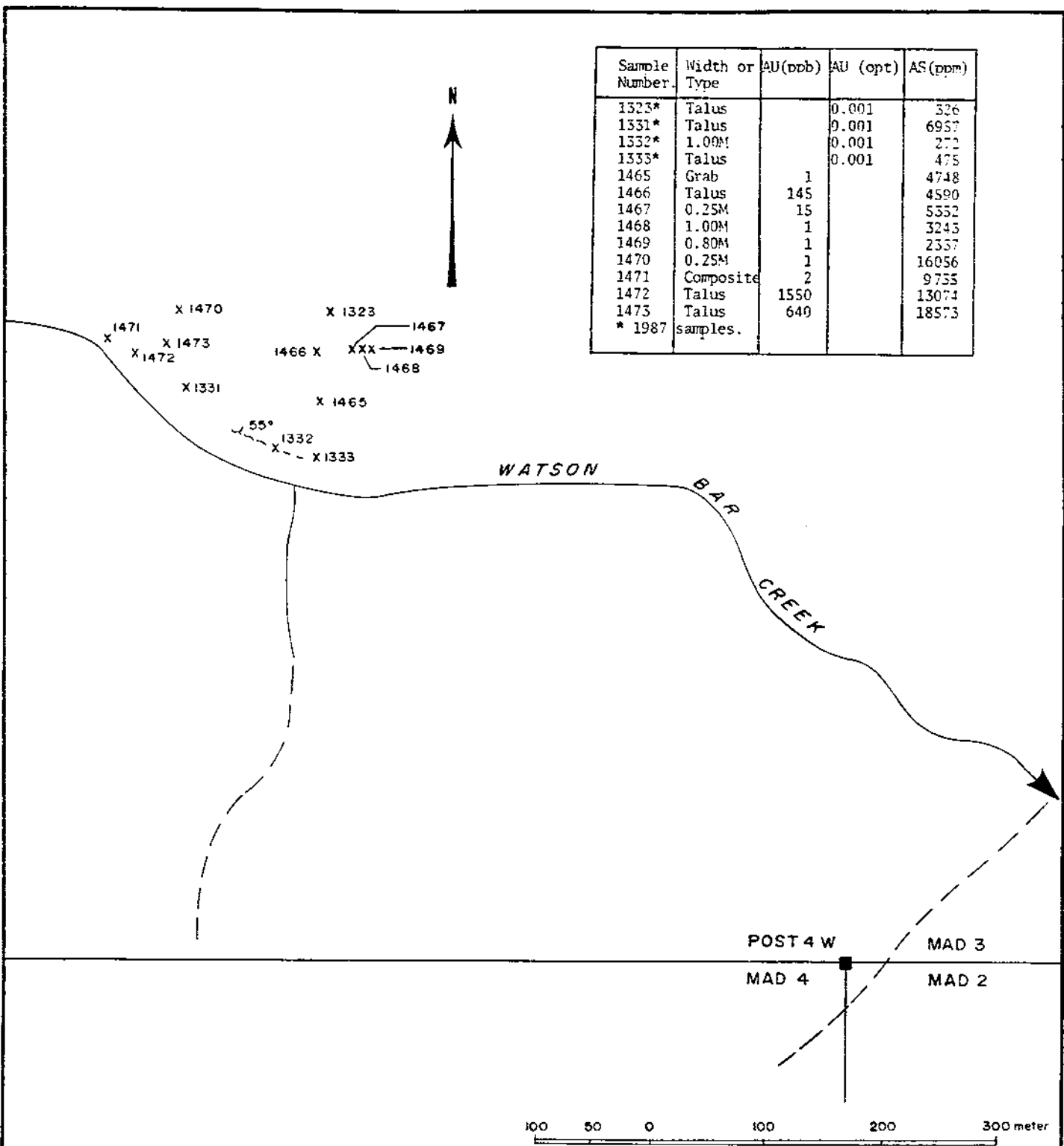
- 30° SHEAR ZONE - DIP = 30°W
- 30° FAULT ZONE - DIP = 30°W
- 30° BEDDING ATTITUDE
- Py. PYRITE
- Asp. ARSENOPYRITE
- Cpy. CHALCOPYRITE
- Sb STIBNITE
- SURVEY POINTS

0 5 10 Metres

<b>CANAMIN RESOURCES LTD.</b>	
CLINTON MINING DIVISION	
<b>MAD PROJECT</b>	
GEOLOGICAL SKETCH - Y. R. PROSPECT	
Work by: TOM LISLE	Scale: 1:250
Drawn by: A.O.	Date: JUNE 1988
Fig. 6b	



Sample Number.	Width or Type	AU(ppb)	AU (opt)	AS(ppm)
1323*	Talus		0.001	326
1331*	Talus		0.001	6957
1332*	1.00M		0.001	272
1333*	Talus		0.001	475
1465	Grab	1		4748
1466	Talus	145		4590
1467	0.25M	15		5352
1468	1.00M	1		3243
1469	0.80M	1		2357
1470	0.25M	1		16056
1471	Composite	2		9755
1472	Talus	1550		13074
1473	Talus	640		18573
* 1987	samples.			



<b>CANAMIN RESOURCES LTD.</b>	
CLINTON MINING DIVISION	
<b>MAD PROJECT</b>	
ASSAY DATA WATSON BAR CREEK	
Work by: TOM LISLE	Scale: 1:5000
Drawn by: A. D.	Date: JUNE 1988
Fig. 7	

