INTRODUCTION

On October 8, 1971, I visited the property located near Cameron and Beggs Lakes now held by West Macanda Resources Limited. The bulk of the data in this report was obtained by personal observation and in a subsequent study of six plans compiled by Noranda Mines Limited and from "Rowan Lake Area", a plan published by the Ontario Ministry of Natural Resources in 1973.

RECOMMENDATIONS

Number 2 Gold Zone

This zone delineated by 11 drill holes detailed below, is approximately 400 feet long, 9 feet wide and 125 feet deep. Actual strike and dip of the ore bearing horizon cannot be determined accurately on the basis of past work. A two phase drill program of the zone is proposed with the objective being to increase tonnage by seeking a continuation of ore values to depth and extending the lateral extremities.

Phase I

Linecutting - 15 line miles @ $200	$ 3,000
Diamond Drilling - 3000' @ $25/ft.	75,000
Prospecting	5,000
Overhead and Supervision	12,000
Contingencies	4,500
Total Phase I	$100,000

Phase II

Will consist principally of follow-up drilling if Phase I program indicates the gold bearing zone is still open in any direction, plus shallow cross sectional drilling in an effort to located similar but so far undetected gold zones.

Cross Sectional Drilling	
2000' @ $25/ft.	$ 50,000
Follow-up Drilling	
5000' @ $25/ft.	125,000
Overhead and Supervision	20,000
Contingencies	5,000
Total Phase II	$200,000

LOCATION AND ACCESS

The West Macanda property is in the Kenora Mining Division, about 50 miles southeast of the town of Kenora. Highway No.71 is 12 miles southwest of the claims.

At the time of my visit, Northwest Air Service Ltd. operated a charter air service based at Nestor Falls. It is a 14 miles flight from here to Beggs Lake.

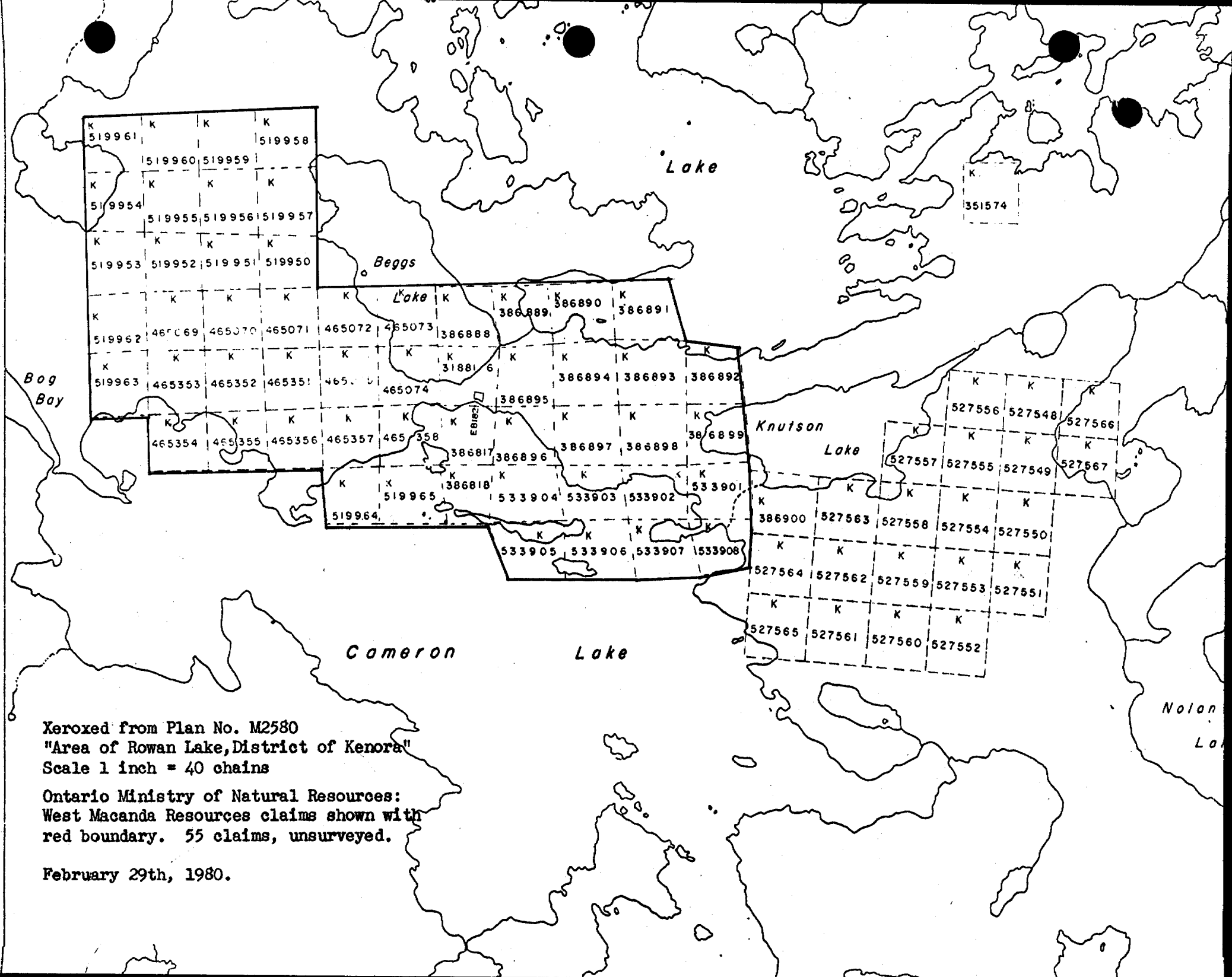
PROPERTY

The property consists of 55 unsurveyed claims: 386888 - 386900 inclusive
386816 - 386818 "
465351 - 465358 "
519950 - 519965 "
533901 - 533908 "

It was staked recently by J. Moorhouse and David Petrunka. The area covered by the claims was worked rather extensively in 1960 and 1961 by Noranda Mines Limited. Forty-three diamond drill holes were bored at that time; some trenching, geochemical and magnetometer work was also done.

GEOLOGY

According to Preliminary Map P.831 "Rowan Lake Area", Ontario Ministry of Natural Resources, the claims are underlain chiefly by mafic intrusive rocks of Pre-Cambrian age.



Xeroxed from Plan No. M2580
"Area of Rowan Lake, District of Kenora"
Scale 1 inch = 40 chains

Ontario Ministry of Natural Resources:
West Macanda Resources claims shown with red boundary. 55 claims, unsurveyed.

February 29th, 1980.

At the time of my visit I saw several outcrops of what appeared to be massive andesite or diorite. There was a pile of diamond drill core on the shore of Beggs Lake which I presumed came from the two showings drilled by Noranda Mines. Most of this core looked like massive andesite, basalt or diorite.

DESCRIPTION OF SHOWINGS

No.1 - this showing has been traced by drilling and trenching for 1,200 feet in an east-west direction. It is a shear zone containing quartz up to 4½ feet in width with carbonate material and sericite schist along the walls. There is a significant amount of pyrite mineralization. The original surface sampling returned excellent values, mostly between 0.45 oz. and 1.74 oz. per ton along a length of 260 feet. The high values may have been due to surface enrichment because the best drill hole results were of the order of 0.15 oz. across 3'. Twenty-six shallow drill holes were put down on this showing.

An east-west base line extends from Beggs Lake westerly for 7,200 feet. North-south cross lines at 400' intervals were observed.

No.2 - there are only two small outcrops close together on the No.2 showing, occurring at 25+50 West and 10+00 South, i.e. about one-half mile southwest of the No.1 showing. According to the marginal notes on Preliminary Map No. P831 which refer to No.2 showing, "Previous drilling in the 1960's by Noranda Mines Limited on its Cameron Lake property intersected gold 'values' along a strike length of about 400'. The gold values were reported (Noranda company files) to occur in a highly silicified zone within highly carbonatized gabbro and sericitized tuff and to contain 0.219 ounces per ton gold across an unweighted average true width of 9.2 feet, representing an indicated 37,500 tons to a depth of 125 feet. Further gold values are reported by

Zahavy Mines Limited to have been intersected by holes drilled in 1972 near the Noranda occurrence."

Seventeen drill holes were put in by Noranda to attempt to trace this showing. The drill results indicate the structure is complex. There appear to be irregular zones of carbonated sericite and chlorite schist. The strike appears to be northwest-southeast. The dip is uncertain but is probably steeply to the northeast.

The following is quoted from Noranda reports:

> "Gold values have been intersected in drill holes along a strike length of 400 feet on the No.2 zone. Correlation of values between holes on same sections and adjoining sections is not entirely clear. On the northwest end a dip of about 45° -55° to the northeast is evident. Toward the southeast considerable steepening and possibly even reversing of dip occurs. The values occur in highly silicified zone contained in a strongly carbonatized and sericitized diorite apparently near a contact of tuff and diorite. The strike of the zone is about N 40°W and corresponds to the strike of the zone of strongest alteration. The northeast contact of the altered zone is not as well defined as the southwest contact.
>
> The average grade of the main zone, including all intersections on the main zone, is 0.219 ounces per ton. (One high assay in hole 29 of 3.2 oz. was cut to one ounce).
>
> The average width of the main zone intersections is 10.2 feet. As the bearing of some of the holes was not at right angles to the strike, and as the dip is uncertain in part, the unweighted average true width is taken as 9 feet.
>
> These approximate and unweighted figures give a tonnage figure of about 300 tons per foot on the dip slope. The average depth of intersection being 125 feet, tonnage to this depth is 37,500 tons.

Summary

Hole 40	0.23 oz. x 8.1 feet	- 1,863
Hole 39	0.32 oz. x 6.5 feet	- 2.080
Hole 27	0.21 oz. x 7.6 feet	- 1.596
Hole 25	0.189 oz.x 26.7 feet	- 5.046
Hole 26	0.12 oz. x 2.2 feet	- 0.264
Hole 38	0.11 oz. x 4.1 feet	- 0.451
Hole 29(cut)	0.41 oz. x 21.3 feet	- 8.733
Hole 35	0.21 oz. x 1.5 feet	- 0.31
Hole 30	0.115 oz.x 20.0 feet	- 2.30
Hole 37	0.32 oz. x 3.1 feet	- 0.992

Average unweighted width of intersection - 10.2 feet
Average true width of intersection - 9.18 feet, say 9 feet
Average grade of intersection - 0.219 oz.per ton
Approximate tonnage - 300 tons per foot on the dip slope
Estimated tonnage to 125 feet on dip slope- 37,500 tons"

The general structure of the area as revealed by Preliminary Map P.831 is interesting and may be of commercial significance. This map shows that the Noranda gold showings are located on the crest of an anticline which is plunging to the southwest. The entire area southwest of Beggs Lake would seem to be ideally situated for repetitions of similar occurrences. Unfortunately, there are few rock outcrops but geophysical methods might reveal anomalies which would warrant diamond drilling.

Respectfully submitted:

W. L. C. Greer

W.L.C. Greer, P.Eng.

Thunder Bay, Ontario
February 29, 1980

C E R T I F I C A T E

I. W.L.C. Greer, of the City of Thunder Bay, in the Province of Ontario, hereby certify that:

1. I am a Geologist.
2. I am a member of the Association of Professional Engineers of the Province of Ontario.
3. I am a graduate of the University of Wisconsin with a degree of Doctor of Philosophy in the year 1931, and have been practising my profession since that date.
4. I hold no interest whatsoever, directly or indirectly, in the security or property of West Macanda Resources Limited nor do I expect to receive any.
5. The data herein contained were obtained from the perusal of publications and maps of the Ontario Department of Mines and from conversations with the prospectors who staked the claims.
   I have made a personal examination of the claim group.
6. I hereby consent to the use of this report dated as below, to satisfy the requirements of any Securities Commission or Stock Exchange in Canada.

DATED at Thunder Bay, Ontario, this 29th day of February, 1980.

W.L.C. Greer

W.L.C. Greer, Ph.D., P.Eng.

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To: H. Douglas Hume
President, West Macanda Resources Limited
Toronto, Ontario

REPORT ON THE GEOLOGY AND ECONOMIC POTENTIAL OF THE CAMERON LAKE GOLD PROPERTY AND A PROPOSED DIAMOND DRILLING PROGRAM FOR THE # 2 ZONE

A. D. Hunter
Geologist

November 21, 1980

Cameron Lake Gold Property

Introduction

This report deals with the geology of the Cameron Lake gold property of West Macanda Resources Limited. Specifically it addresses itself to the geology of # 2 Zone which has been the subject of two separate diamond drill programs by Noranda Exploration Company Limited. The information gleaned from this past drilling is invaluable, since there is i) essentially no outcrop in the area of the # 2 Zone, and ii) the potential for stratabound gold mineralization is now apparent in the light of recent geological concepts and gold deposit discoveries.

Location

The Cameron Lake property lies immediately east of Lake of the Woods, approximately 15 air miles (23 km) east of the village of Nestor Falls on Highway # 71 (Fig.1). The mining claim group comprising the property encompasses the north shore of Cameron Lake and extends northward from the lake for a distance of up to 1¼ mi.(2 km) as illustrated in Fig.2. The area lies in a section of the Kenora Mining Division covered by the Rowan Lake sheet.

Property Ownership

West Macanda Resources Limited holds 55 contiguous mining claims covering the Cameron Lake gold showings. Fifteen (15) claims were staked by Thunder Bay Prospectors W. Morehouse and D. Petrunka, from whom the Company purchased the claims. Subsequently, the Company staked 40 additional claims. Additional claims may be acquired.

History and Previous Exploration Activities

Although gold was discovered in this region of Ontario before the turn of the century the gold showings at Cameron Lake have been known for only 20 years. They were discovered by Joe Burke and Alex Bondine, Noranda prospectors, 1960. Their discoveries, the # 1 and # 2 Zones (Fig.2) were staked that year and due to encouraging channel-sample assays they were tested by 'pack sack' diamond drilling and later by a major drilling program. The program entailed the drilling of 43 holes over the period mid-July 1960 to mid-February, 1961. Of these 26 tested the # 1 Zone and 17 tested the # 2 Zone. The # 2 Zone proved to be the most interesting. A total of 3909' of drilling was done here testing an auriferous zone determined to be about 400' long; down to a depth of 125-150' (see Fig.3).

Grid controlled geological and geophysical surveys were conducted on the claim group during the summer of 1960 and continuing until the summer's end, 1961. Magnetometer and 'Crone' J.E.M. surveys proved of little use in the planning of diamond drilling as they failed to 'identify' the auriferous # 2 Zone.

Noranda held a claim group at Cameron Lake until 1971 when the claims were allowed to lapse presumably "due to the low tonnage and grade of the # 2 Zone" (G.W. Adams, 1974).

Zahavy Mines Limited restaked part of the original Noranda claim group in 1972 and drilled 7 holes. This company tested an area about ½ mi.(0.8 km) west of the # 1 zone where they reportedly intersected an auriferous zone which was considered to be the westward extension of the # 1 zone.

In December, 1973, Noranda Exploration Company, Limited optioned the 28 unpatented Zahavy claims. A drill program was proposed to confirm the Zahavy intersections, and to test for continuity and possible extensions of the # 2 Zone. For this drilling Noranda relied on the detailed mapping done in 1961. The claim group was subjected to a magnetometer and a VLF-EM survey and the # 2 Zone was detailed by these surveys. The resulting maps discriminated between diorite bodies and the volcanics and indicated the strike of the rocks; however, they did not aid the drilling program.

Noranda drilled a total of 2101' in 9 holes. The first 3 holes tested, unsuccessfully, the new zone previously indicated by Zahavy Mines. The other 6 holes were drilled on the # 2 Zone both to attempt to extend the gold-bearing zone and to fill in gaps in the previous drilling pattern (see Fig.3). The zone was extended to the northwest and holes drilled to fill in gaps in the earlier drilling intersected the zone but only substantiated its presence and did not add to the tonnage or grade (Adams, 1974). Noranda did not attempt to extend the zone to depth. No reason is given for this apparent anomaly.

The property at Cameron Lake has lain idle since August of 1974. The author has visited the property, in the company of H.D. Hume, in early November, 1980. At that time the area of the # 2 Zone was examined and many of the old diamond drill setups were located and flagged.

Geology of the Cameron Lake Area

Perhaps the earliest recorded mapping in the area was conducted in 1930-31 when E.M. Burwash produced a map of the Kakagi Lake area on behalf of the Ontario Department of Mines. On his map, at a scale of 1"=1 mi., the Cameron Lake area is underlain primarily by northwest-southeast trending mafic volcanic rocks. Also salient on his map are carbonatized felsic schists carrying sulphide mineralization and gold. These he interpreted to be conformable and interbedded with the mafic volcanics.

The mapping done by Noranda during 1960 and 1961 revealed that a high proportion of the bedrock exposed on the Cameron Lake property is diorite. Owing to the general sparsity of outcrop on the property the form of these mafic intrusions is indeterminable except at the # 2 Zone where the diorite (or gabbro) forms sills and lens-shaped bodies within the volcanics. Rock units also mapped by Noranda include pillowed and massive andesite and sericite schists, sometimes carbonatized and carrying gold (determined by panning). These schists were thought to represent shear zones within the volcanics. It seems likely that they are altered and sheared siliceous horizons within a predominantly mafic volcanic sequence. If so, then they should be investigated for potential economically significant gold mineralization.

A salient feature of the geology is the presence of a number of sheared and altered zones in the volcanics and mafic intrusions (e.g. # 2 Zone). These zones are rusty due to the weathering of ankerite and, locally, sulphides and characterized further by the minerals sericite and chlorite. The volcanic

units and schistosity in these strike southeasterly and dip steeply toward the north.

Geology of the Gold-Bearing Zones

The #1 Zone immediately west at Beggs Lake was tested by 26 diamond drill holes. It was determined to be a quartz-carbonate vein in sheared diorite. It was traced for about 500' in an east-west direction and carried very low values of gold in core samples from drilling beneath trenches.

The geology of the # 2 Zone has had to be decipered solely from the diamond drilling done here. There are only a few outcrops and in general the terrain is level and bedrock is covered with 3-15' of overburden consisting ofboulders, loam and clay.

Intermediate to mafic, sheared, carbonitized lavas constitute the predominant lithologies encountered during the drilling (D. Cross, 1961). Associated with these 'andesitic' flows are medium-grained massive diorite (or gabbro) bodies. Bedded siliceous tuff and lapilli tuff was also noted in the core. This has been verified by the most recent drilling (1974) the logs of which make frequent reference to bedded fragmental rocks, occasionally carrying disseminated pyrite mineralization. Pyritic tuff and lapilli tuff of the # 2 Zone appear to be auriferous locally and this has great significance with regard to future exploration on the property. This will be dealt with in a following paragraph. Pyritic sericite and chlorite schists were also encountered in the drilling. Low levels of gold are reported in these rocks which may be sheared and altered tuffs.

The gold-bearing zone of interest has been determined to be a highly altered shear zone which cuts the volcanics and the diorite. The gold mineralization is associated with bleached, sericitic rocks carrying ankeritic carbonate and quartz stringers and veins. Pyrite is also a constituent of the auriferous zone; however, its relative abundance does not appear to have a direct relationship to gold grades (D. Cross, 1961).

The author has undertaken to examine all the available information from previous diamond drilling programs. With the use of this data a geological interpretation of the # 2 Zone is offered to the reader (see Fig.3) It is evident that there is more than one zone of gold mineralization and just how these are related is very difficult to determine. Some of these appear to be altered, mineralized shears transgressing both the volcanics and diorite. Whereas the zone intersected in holes #25,#26,#27,#39 and #40 and 80-5 is spatially related to tuffaceous horizons which have been traced at least 700' to the northwest. The possibility that stratabound gold mineralization of economic significance may exist here has not been previously considered. Yet this idea has some merit based on the data of the most recent diamond drilling.

Summary and Conclusions

The nature of gold mineralization at the Cameron Lake # 2 Zone is somewhat enigmatic. However, very significant intersections, up to 0.19 oz/ton Au over a true width of 26' (D.D.H.#25), are known from previous drilling. The gold mineralization is hosted by intensely altered, carbonatized and sericitized volcanic and intrusive rocks; features that are

strongly reminiscent to those of gold mines at Timmins, Kirkland Lake and Red Lake.

Mineralization at the # 2 Zone is known to extend for at least 400' and in general it has only been tested to a vertical depth of between 125-150'. It is clear that the mineralization has potential to extend to depth either within structurally complex zones of shearing, alteration and quartz-carbonative veining, or within volcanic stratigraphy. The latter suggestion gains support from the number of stratabound gold deposits that have been discovered in the last ten years, for example, the Agnico Eagle deposit in Joutel, Quebec, and the Silverstack and Thompson-Bousquet deposits in proximity to the Cadillac break near Cadillac, Quebec. The possibility that some of the gold mineralization at the # 2 Zone may be volcanogenic must be investigated.

A diamond drill program is required if the nature of gold mineralization and the geologic relations at the # 2 Zone are to be better understood. A drill program could achieve several immediate objectives:

i) Examine the known mineralized zone in more detail than previously which may yield new structural information which could aid the planning of future drilling;

ii) Following from i) above, the zone or zones should be tested for depth continuity;

iii) The drilling should be planned to give a maximum amount of information regarding volcanic stratigraphy; at the same time checking horizon(s) with disseminated sulphide which appear to carry significant gold values.

Due to a general sparsity of outcrop on the Cameron Lake property some form of geophysical survey will have to be considered in order to detect other zones similar to the # 2 Zone. Magnetic and EM surveys tried on the property thus far have been of little use, in that the # 2 Zone had no expression. However, the I.P. method has not been tried on the property and there is every reason to believe that such a survey, designed to detect zones of disseminated sulphides, might be useful. This type of survey could be run over the # 2 Zone once a grid were established. This would entail about 2-3 line miles of surveying in order to get a good feeling for background I.P. effects, from the area in the environs of # 2 Zone.

If, in the future, I.P. were to prove effective then it could be employed on the property in conjunction with VLF-EM and geological mapping (rock and overburden) surveys.

Overburden drilling to sample basal till and bedrock could be planned on the basis of encouraging geophysical results. In this way geological and geochemical data could be better related to geophysics in areas where there is little or no outcrop. In recent years gold discoveries by Texasgulf and Asarco have been attributed, in large part, to overburden drilling followed by core sampling of bedrock.

The Cameron Lake property of West Macanda Resources appears to have excellent potential based on a significant occurrence of gold mineralization which has not yet been too fully explored and studied. The property as a whole is in its infancy stage of exploration since the known prospects ?

were discovered only 20 years ago and certain geophysical and geochemical techniques remain to be applied to the property.

Proposed Diamond Drill Program

A grid should be established over the # 2 Zone as illustrated in Fig.3. This grid will hav a base line cut at 135°-215° with cross lines at 50' intervals. Drilling would be planned on a 50' grid pattern ultimately giving us five closely spaced drill sections for study. (As shown on Fig.3) These are Sections 0+50E, 0+00, 0+50W, 1+00W, 1+50W and 3+50W. Such a careful, deliberate examination of the known mineralization has not been attempted. It is evident that the drilling will be testing the continuity of gold mineralization down to a vertical depth of about 250' in addition to studying known mineralization from surface to the 125' level. The drilling has been planned to take advantage of existing data from past programs.

A tentative breakdown of the drilling follows:

Section	# of Holes	Depth(ft.) N to S		Inclination
0+50E	4	300		-45°
		250	950'	"
		200		"
		200		"
0+00	4	350		-45°
		300	1200'	"
		250		"
		200		
0+50W	4	400		-45°
		350	1300'	"
		300		"
		250		"
1+00W	2	300	550	-45°
		250		

Section	# of Holes	Depth (ft.) N to S		Inclination
1+50W	3	300		-45°
		250	750	
		200		-45°
2+00W	1	200	200	-45°
		Total	5150'	
3+50W	2	400		-45°
		300	700	
		Total	5850'	

The two holes planned on section 3+50W will test pyritic tuffaceous horizons below the 80-7 intersection and is also designed to test for zones of alteration and shearing which may be auriferous.

Budget for '81 Exploration Program - Phase I

1) Line Cutting - 40 l/m(approx.) @ $250	$10,000
2) Magnetometer Survey - 40 l/m (approx.) @ $125	5,000
3) I.P.Survey - 20 l/m @ $1,250	25,000
4) Geological Mapping & Prospecting	10,000
5) Diamond dilling - 6000 ft @ $25	150,000
6) Sampling,assaying,core racks,storage,etc.	15,000
Flying service,Nestor Falls to property	12,000
Overhead & Supervisions	20,000
	247,000
Contingencies @ 15%	37,000
Total	$284,000

The program proposed herein could proceed as soon as spring break up is over. The only access to the property at present is by float plane from Nestor Falls.

Respectfully submitted,

A.D. Hunter, M.Sc.

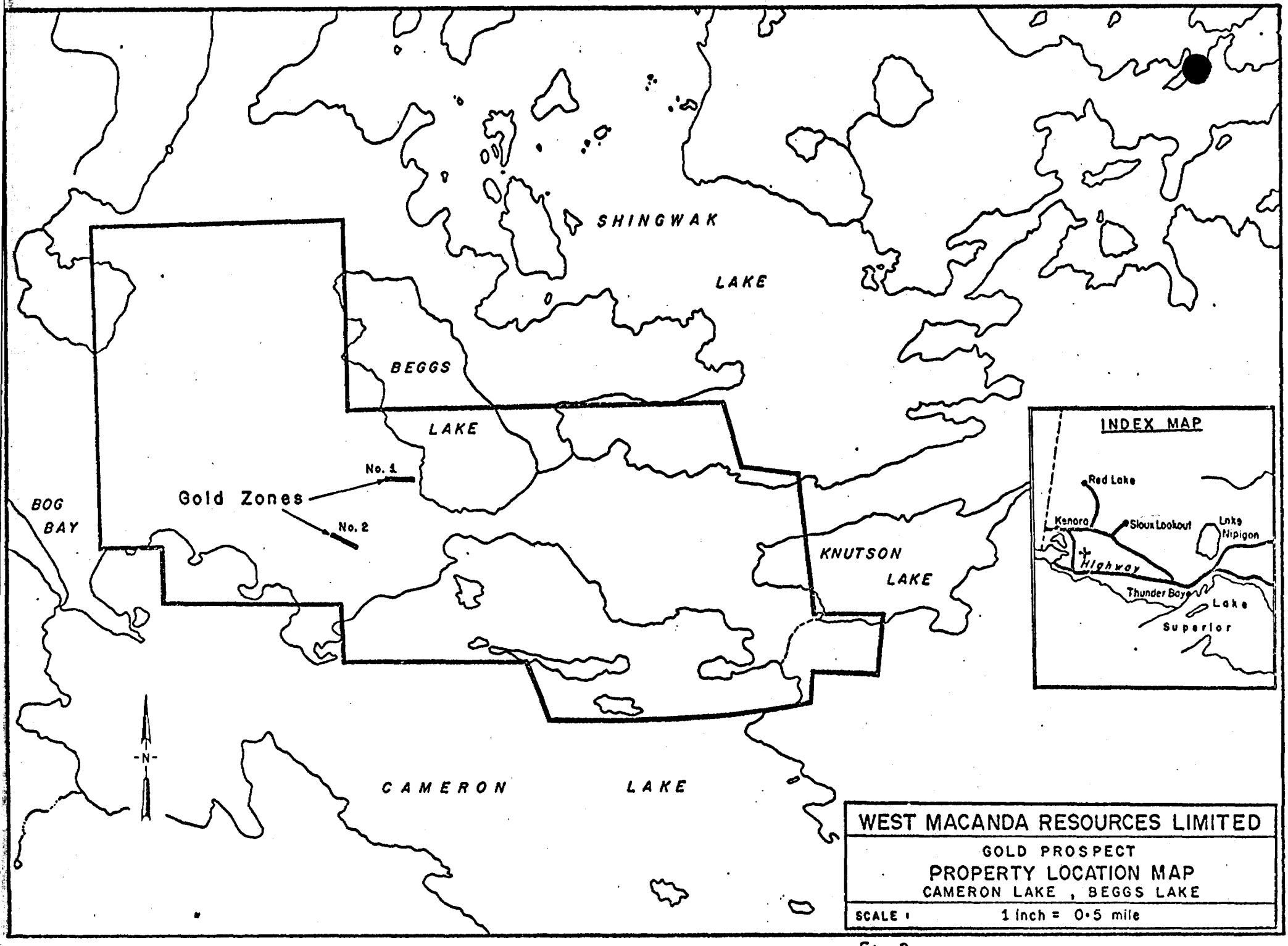
SHINGWAK
LAKE
BEGGS
LAKE
No. 1
Gold Zones
No. 2
BOG
BAY
KNUTSON
LAKE
CAMERON
LAKE
-N-
INDEX MAP
Red Lake
Kenora
Sioux Lookout
Lake
Nipigon
Highway
Thunder Bay
Lake
Superior
WEST MACANDA RESOURCES LIMITED
GOLD PROSPECT
PROPERTY LOCATION MAP
CAMERON LAKE , BEGGS LAKE
SCALE : 1 inch = 0·5 mile

Fig. 2

CLAIM BOUNDARY

L24W

L16W

L8W

L0

L8E

L16E

L24E

L32E

L0

L8E

B.L.(EAST)

BL 28+00N

L16E

L24E

L32E

L40E

L48E

L56E

L72E

L80E

L64E

BOUNDARY

BL 0+00

CLAIM

HEN

GONE

LAKE

SHINGWAK

LAKE

BEGGS

LAKE

CAMERON

LAKE

L.P.

3W

1W

1E

L20S

No.2 ZONE

TO

BE STAKED

KNUTSO

LAKE

N

NUINSCO RESOURCES LIMITED

CAMERON LAKE

GRID PLAN

SCALE: 1000 0 1800 3000 1" = 1320 Ft

DATE: April 1981 COMPILED BY: A.D. Hunter

Figure 3

900

OM81-3-C-85

THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

① Report on Geologic, Magnetic & I.P. Surveys, On Cameron Lake Gold Property by A.D. HUNTER ⇒ File # 2.4420

② Cameron Lake Gold Property - 1981 Drill Logs Holes NC-1 to NC-19 ⇒ Reports of Work 189-81, 190-81, 191-81

Toronto file, Rowan Lake D.D.R. #27

Note: Vellums are available for map copies