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SUMMARY REPORT

THE
ASLAN EXPLORATION
ROBB-JAMIESON TOWNSHIPS CLAIM BLOCK
PORCUPINE AREA, ONTARIO

by

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MINING LANDS SECTION

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December 8, 1987

SUMMARY

The Aslan Exploration property consists of 30 staked mining claims with a total area of approximately 1200 acres which form a block of ground about the boundary between Robb and Jamieson Townships, Porcupine Mining Division, District of Cochrane, Ontario. The area is about 25 miles (40 km) west from the City of Timmins and may be reached by paved road from that city directly to the southern and western part of the property. The ground has moderate relief with mixed forest with poor outcrop density for geological mapping or prospecting.

Geologically, the ground lies on the north contact of a structural dome where gabbroic and granitic rocks give way to steeply-dipping Archean mafic and felsic volcanic rocks. This contact bisects the ground along a northwest line and contains a body of felsic porphyry which trends southeastward onto adjoining property.

The ground northward, eastward, and southeastward from the Aslan property contains a string of massive sulfide deposits, some of which have been mined in the past for copper, zinc, lead, and silver: the Kam Kotia Mine, the Jameland Mine, the Dominion Gulf massive sulfides, the Jamieson Mine and the Genex Mine. To the south, an old gold deposit known as the Lally Mine occurs. Considerable exploration has taken place on the present ground since 1909, consisting of prospecting and geological mapping for gold and, in the period after 1946, geophysical and geological exploration for base metals. Gold exploration has been done on the property since 1981 by Glory Mines and Aslan Exploration, the Glory Mine work resulting in the discovery of a gold-bearing zone immediately north of the Aslan ground, the stratigraphic units in which it occurs continuing onto that ground. Immediately southwestward from the claims the spectacular Jamieson gold showing occurs; southeastward another gold occurrence is known with associated silver, copper, and zinc. On the present property a copper showing is known and several areas containing sulfide mineralization or quartz veins are also known. Overburden drilling along a line near the northern middle part of the ground has located anomalous values in gold in basal till, a discovery that may indicate undiscovered mineralization nearby.

The Aslan property appears to the writer to be an excellent area in which to search for mineralization in gold and silver and in base metals.

An exploration program costing between \$200,000 and \$500,000 has been recommended consisting of data compilation, the production of detailed magnetometer surveys and electromagnetic (VLF) coverage, some induced polarization work, possible stripping and trenching, and a program of diamond drilling which would account for half of the larger cost estimate quoted above.

The program is designed to begin modestly with the data compilation and proceed to more expensive work as warranted by the results.



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THE ASLAN EXPLORATION ROBB-JAMIESON TOWNSHIPS CLAIM BLOCK

PORCUPINE AREA, ONTARIO

by

John L. Kirwan

INTRODUCTION

This report concerns a block of ground situated in the eastern part of Robb Township and the western part of Jamieson Township in the Porcupine Mining Division, District of Cochrane, Ontario, Canada. The ground consists of 30 contiguous, unpatented, mining claims having an area of 1200 acres, more or less, 26 of the claims being in Robb Township, and the remaining 6 being in Jamieson Township which adjoins Robb to the east. The general location of the area is shown in Figure 1, page 2 below, and the distribution of the claims is shown in Figure 2, page 3.

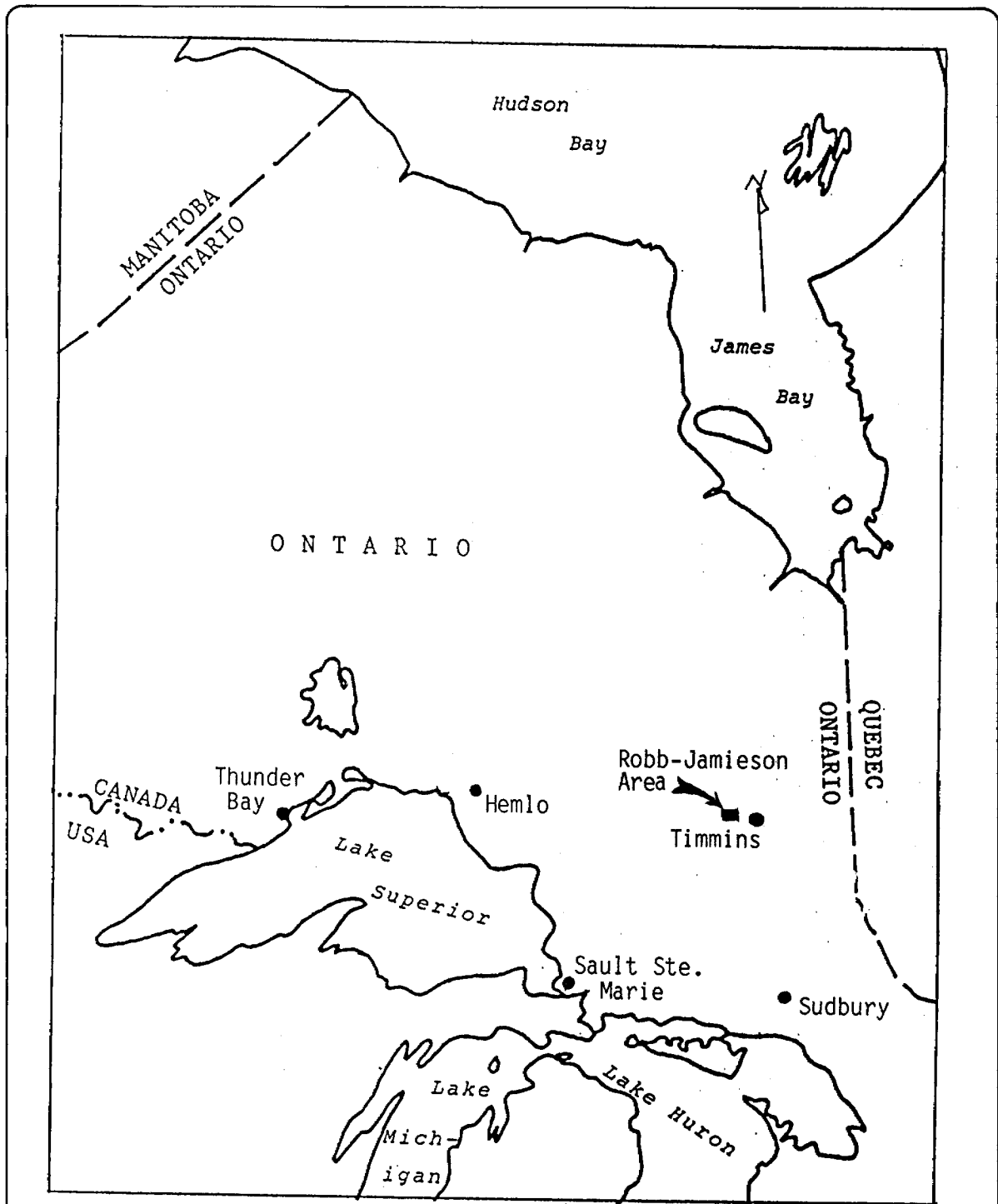


Figure 1: Location of the Property Area in Northeastern Ontario

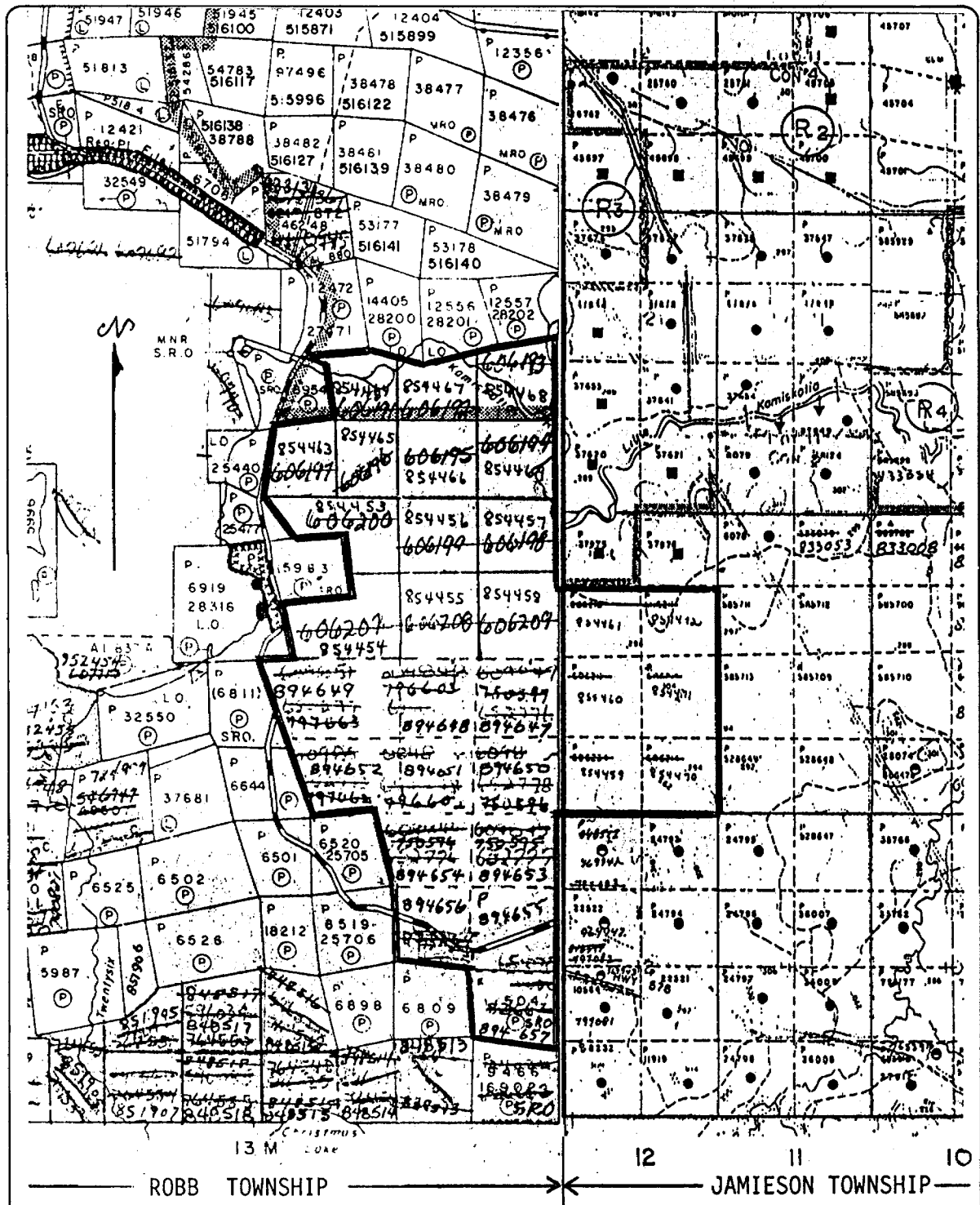


Figure 2: Distribution of the Aslan Exploration mining claims in Robb and Jamieson Townships, Ontario. Photoreproduced from the Ontario Ministry of Natural Resources claim maps for the area, Sheets M309 and G3986, dated October 15 and November 24, 1987, respectively. Scale, 1" = 1/2 mi.

THE CLAIMS

The 30 mining claims which constitute the subject property are numbered as follows (see Figure 2 above):

a. In Robb Township:

P.854453
P.854454
P.854455
P.854456
P.854457
P.854458

P.854463
P.854464
P.854465
P.854466
P.854467
P.854468
P.854469

P.894647
P.894648
P.894649
P.894650
P.894651
P.894652
P.894653
P.894654
P.894655
P.894656
P.894657

b. In Jamieson Township

P.854459, being the SW $\frac{1}{4}$ S $\frac{1}{2}$ Lot 12 Concession II, Jamieson Twp.
P.854460, being the NW $\frac{1}{4}$ S $\frac{1}{2}$ Lot 12 Concession II, Jamieson Twp.
P.854461, being the SW $\frac{1}{4}$ N $\frac{1}{2}$ Lot 12 Concession II, Jamieson Twp.

P.854470, being the SE $\frac{1}{4}$ S $\frac{1}{2}$ Lot 12 Concession II, Jamieson Twp.
P.854471, being the NE $\frac{1}{4}$ S $\frac{1}{2}$ Lot 12 Concession II, Jamieson Twp.
P.854472, being the SE $\frac{1}{4}$ N $\frac{1}{2}$ Lot 12 Concession II, Jamieson Twp.

The writer knows of no liens, cautions, contracts, or other restrictions that would prevent the present holders of the claims from conducting mineral exploration on the ground with a view to discovering, developing, and mining one or more deposits of economic minerals thereon. The present report is being made with the purpose of describing the economic possibilities of the ground,

and recommending exploration work to locate and quantify such mineralization that may be present.

LOCATION, ACCESS, TOPOGRAPHY

The claim block is situated approximately 25 miles (40 km) west of the City of Timmins, from where it may be reached by paved road via Highway 101 westward from the city, thence by Highway 576 towards Kamiskotia, which highway enters the claim group and skirts its western edge.

The claims themselves show a moderate to low topographic relief with swampy, sandy, and rocky areas in a mixed deciduous and coniferous forest.

SOURCES OF INFORMATION

The following sources of information were used in the writing of this report:

1. Geology of the Robb-Jamieson Area, by L.G.Berry, 1944, and Geological map 53c at a scale of 1 inch to ½ mile. Ontario Dept. of Mines Ann. Rpt. Vol. LIII, Part IV, 1944.
2. Geology of the Porcupine Gold Area, by A.G.Burrows, 1910, Ontario Bureau of Mines, Vol. XX, Part II, 1911.
3. Magnetic Survey of Robb and Jamieson Townships, 1972, by R.S.Middleton, and Geological map 2255 at a scale of 1 inch to ½ mile, 1973.
4. Robb Township, Ground Magnetometric Map, 1970, at a scale of 1 inch equals ¼ mile, Ontario Department of Mines Map P.598.
5. Jamieson Township, Ground Magnetometric Map, 1969, at a scale of 1 inch equals ¼ mile, Ontario Department of Mines Map. P.521.
For a reproduction of parts of maps P.521 and P.598, see Figure 4, below, page 12.
6. Robb Township, Geology, 1971, Ontario Dept. of Mines Map P.694, at a scale of 1 inch equals ¼ mile.
7. Jamieson Township, Geology, 1971, Ontario Dept. of Mines Map P.695 at a scale of 1 inch equals ¼ mile.
For a photoreproduction of parts of maps P.694 and P.695, see Figure 3, below, page 10.
8. Claim Maps for Robb and Jamieson Townships at scales of 1 inch to ½ mile and 1:20,000 respectively (Ontario Ministry of Natural Resources Maps M.309 and G3986 respectively).

For a photoreproduction of parts of the above two maps at nearly the same scale, see Figure 2, page 3 above.

9. Timmins-Kirkland Lake Sheet, Geological Compilation Map at a scale of 1 inch equals 4 miles. Ontario Geological Survey Sheet 2205, 1973.
10. Geology of the Porcupine Area, by John L. Kirwan, 1968: Unpublished PhD thesis, University of London, including geological compilation and interpretation of the subject area at a scale of 1 inch equals ½ mile.

This report also contains an airborne electromagnetic survey (INPUT) at a scale of 1 inch equals ½ mile.

The following files covering all or parts of the subject claims area were examined in the files of the Ontario Geological Survey in Timmins:

12. File T.102: Kirkland Minerals Corporation, 1959: Magnetic and Electromagnetic surveys and Diamond Drilling: reports by Tom Gledhill.
13. File T.311: Mining Corporation; Geological map by R.D.MacDonald at a scale of 400 feet to 1 inch, undated.
14. File T.391: New Walcoro Mines Limited: Diamond Drill Logs and brief summary of mineralization by Nelson Hogg, 1950.
15. File T.497: Falconbridge Nickel Mines Limited (Allerston Option), Report and maps on geological mapping, by Edward Lyons, and on Electromagnetic and Magnetic surveys, by Hugh D. Carlson, 1971.
16. File T.580: Geo-Scientific Prospectors Limited: report and Maps of Resistivity and Self Potential Surveys, both by N.B.Keevil, 1955.
17. File T.901: Mespi Mines Limited (Tesluk Option): geophysical Reports and maps by L.K.Lyttle of Magnetometer and Crone JEM Electromagnetic Surveys, 1964.
18. Canadian Lencourt Limited: Report and Maps on Magnetometric and Electromagnetic Surveys, by B.W.Pelette, 1966. (File T.1373).
19. V.R.MacMillan: Report and Maps on Magnetometric and Electromagnetic (VLF) Surveys, by S.S.Szetu, 1969. (File T.1403).
20. Glory Mines: Report and Maps on Magnetometer Survey by William O. Karvinen, 1984. (File T.2608).
21. Aslan Exploration, Geological Report and Maps by William O. Karvinen, 1986. (File T.3130).

The above publications and Assessment File reports are in the public domain and may be consulted at offices of the Ontario Geological

Survey in Timmins and Toronto, or purchased from the Government of Ontario Publications Office. The following reports were obtained from the files of Aslan Exploration and Glory Mining:

22. W.O.Karvinen, 1982: Report on Diamond Drilling (Holes 82-4-82-7).
23. W.O.Karvinen, 1982: Report on Diamond Drilling, Holes 1 and 2.
24. W.O.Karvinen, 1982: Report on Diamond Drilling and Trenching.
25. W.O.Karvinen, 1982: Trenching and Channel Sampling.
26. W.O.Karvinen, 1982: Overburden Drilling, East Group.
27. Gary M. Poetschke, 1983: Property Visit Report, Tesluk Property, Robb Township, Ontario.
28. John S. Tesluk, 1982: Report on Tesluk Property (Recommendations section only).
29. Louis Godbout (district Geologist, Timmins, for Utah Mines Ltd.) Letter with Assays
30. John L. Kirwan, 1983: Summary Report, Tesluk Property, Robb and Jamieson Townships, Ontario.
31. J.A.Kelly (Geological Consultant, Royal Oak Resources Ltd.) 1987: Letter regarding visit to the property.

Because most of the above reports (with the exception of the W.O.Karvinen summary on overburden drilling) refer to work performed on patented ground, they are not currently in the Assessment Files of the OGS in Timmins. The patented ground immediately adjoins the present claim block to the north.

HISTORY OF EXPLORATION

Some of the earliest exploration in the area took place in 1909 and thereafter, in conjunction with the Porcupine Gold Rush of that year. This consisted of normal prospecting, almost exclusively for gold mineralization, and covered virtually all of Robb, Jamieson, and surrounding townships, resulting in the discovery of gold mineralization in Turnbull Township immediately to the south of the present area at the old Lally Mine. During this period of exploration, which lasted into the 1940's, several areas near the Robb-Turnbull township line were located in which gold-bearing glacial erratics were found.

During this period, numerous showings of base metals and gold have been made in the area, the most important from the viewpoint of this report being an area of quartz veining about 400 feet southwest of the property boundary containing visible gold, an occurrence that will be discussed later in this report under the section on regional economic geology.

Another gold occurrence, of significance in relation to the Aslan ground, is the reported discovery by George Jamieson (an early prospector in the area) of a piece of glacial float about a half mile south or southwest of the present ground, on the boundary with Turnbull Township to the south, "about half the size of a tent" containing visible gold.¹

Silver mineralization has also been reported, in association with copper, zinc, and lead, in an area about a quarter mile south of the present ground, and will be discussed below in the section on regional economic geology.

Prospecting activity was also responsible for the discovery of the Kam Kotia Mine (copper, zinc, silver) about 1½ miles north of the claims and of the Jamieson Mine (Copper, Zinc) about a mile southeast of the ground.

An examination of the data in the Resident Geologist's Assessment Files in Timmins indicates that exploration after 1945 was mainly for base metals, and that this activity increased dramatically after the discovery of the Texas Gulf massive sulfide deposit in Kidd Township to the northeast, in the period 1964 to 1975. Geophysical work and diamond drilling resulted in the discovery of the Jameland orebody about a half mile northeast of the present ground in Jamieson Township. The activities of Kirkland Minerals, Mining Corporation, New Walcro Mines, Falconbridge, Geo-scientific Prospectors, Mespil Mines, Canadian Lencourt, and V.R. MacMillan between 1946 and 1970 on the present ground (see page 6 above) were directed to the discovery of massive sulfide mineralization.

¹ Reported by C.D. Mackenzie, former Chief Exploration Geologist of Hollinger Consolidated Gold Mines Limited (Personal Communication, 1961, 1987) who obtained the information from George Jamieson, its discoverer. The location is given as on the township line beside Christmas Lake, "right on the trail". Quoted with permission of C.D. Mackenzie.

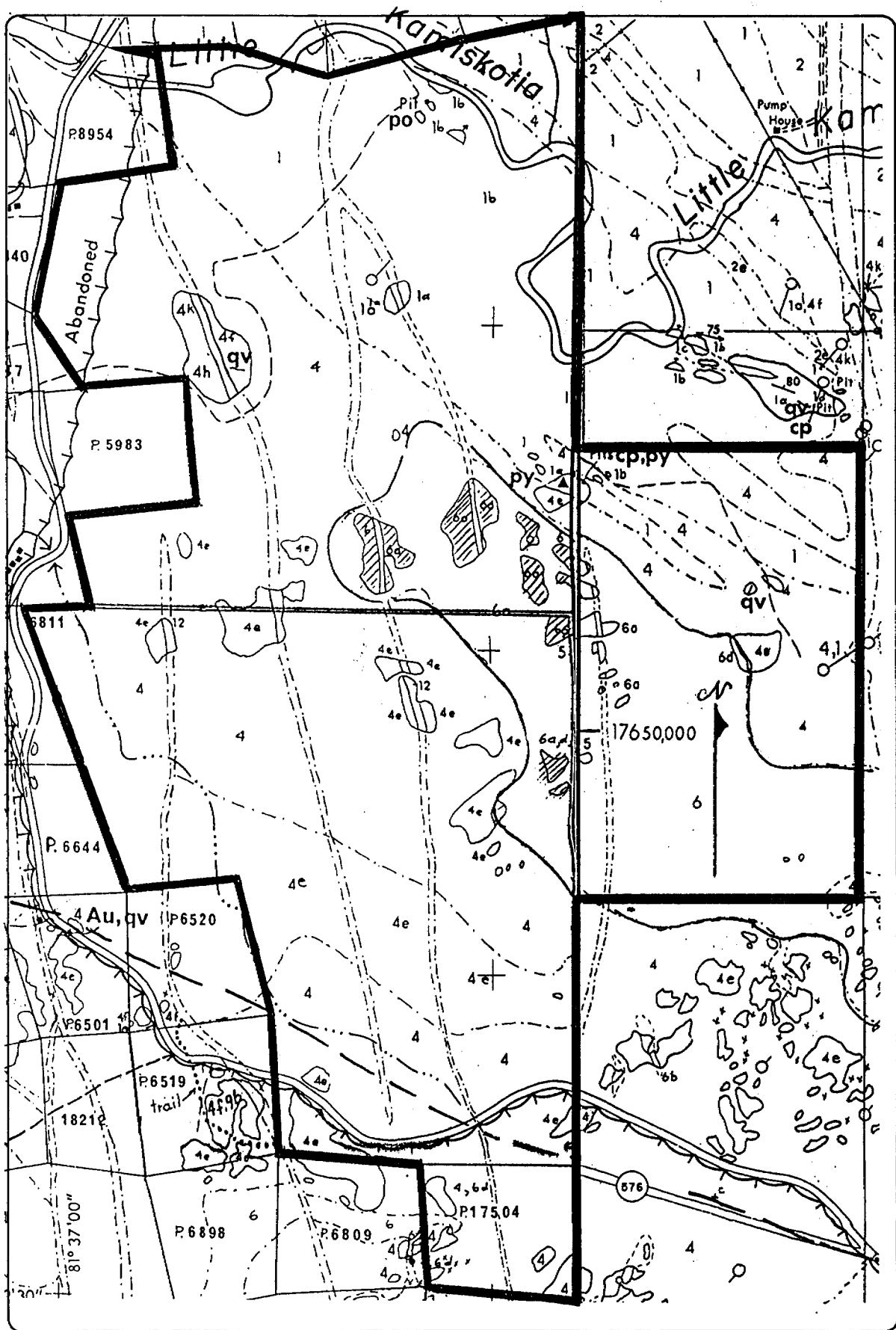
Between 1981 and 1987, Glory Mines and Aslan Exploration held much of the present ground and conducted, or are conducting, mineral exploration mainly directed towards the discovery of gold mineralization with, in the case of Glory Mines, some success. This will be further discussed below in the section on economic geology.

A summary of the geophysical results of all work on record in the OGS Assessment Files, as of 1968, appears below in Figures 4, page 12, and 5, page 13. It must be emphasized, however, that this compilation is limited to information in the records of the Resident Geologist in Timmins and does not, therefore, include activities before 1946, or work done on patented claims.

GENERAL GEOLOGY

The geological information presented below as Figure 3, on page 10, is derived from a geophysical interpretation of the area made by R.S. Middleton in the early 1970's, and may be limited in precision and detail by the coarse quality of the geophysical information which he had at his disposal. Nevertheless, this interpretation shows the presence of a felsic porphyry body in the central and eastern part of the claims which trends off the ground southeastward. It also shows the general northwestward trend of the enclosing rocks, which consist of Early Precambrian (Archean) mafic volcanics and minor felsic volcanics in the northeastern part of the ground and, in the southwestern two-thirds of the ground, gabbroic intrusives. The very few strike and dip symbols which appear on Berry's geological map of the area dated 1944 indicate that the volcanic rocks have a steeply north-dipping or vertical attitude. Bedrock outcroppings are not abundant on the Aslan ground, so that a knowledge of the underlying geological setting that is so important to mineral exploration must come from geophysical surveys, stripping operations, diamond drilling, and regional considerations.

On a regional basis, the Kirwan thesis of 1968 reached conclusions of possible economic concern for the present ground. He considered and still considers, that the ground for about 5 miles south of the





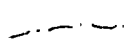
EARTH RESOURCE ASSOCIATES (ERA)

JOHN L. KIRWAN

Figure 3: Geological Summary of Aslan Robb-Jamieson Claims
For Explanation of Symbols see page 11 below.

Scale: 1 inch equals 1/4 mile.

SYMBOLS
USED ON FIGURE 3, GEOLOGICAL SUMMARY OF THE
ASLAN ROBB-JAMIESON CLAIMS

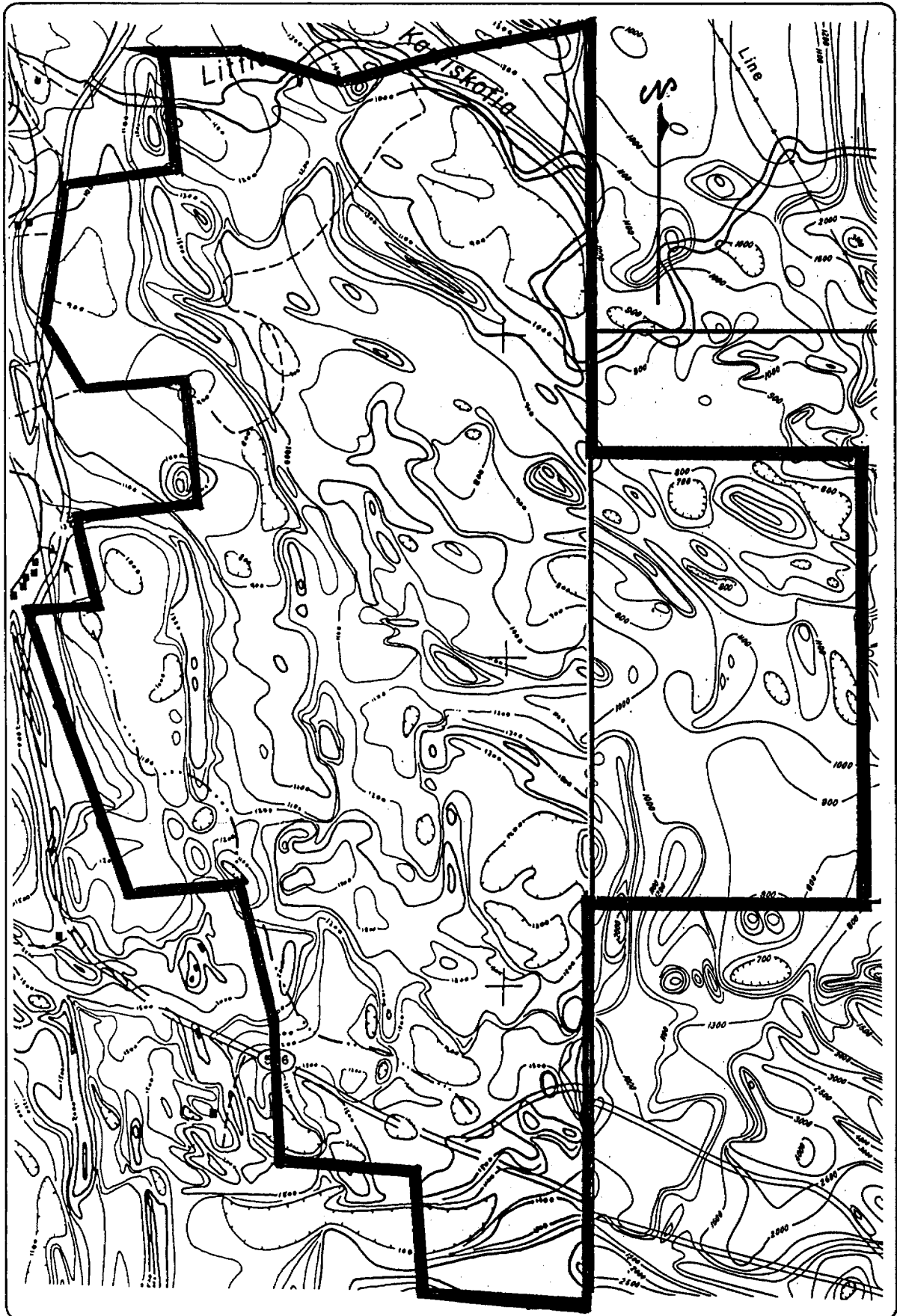
Age	Map Symbol	Description per OGS Map P.694
Early to Mid Precambrian	12	DIABASE: Unsubdivided
Early Precambrian	6 6a	EARLY FELSIC INTRUSIVE ROCKS, Unsubdivided Granophyric quartz-albite porphyry, trondhjemite.
Early Precambrian	4 4e 4f 4h 4k	EARLY MAFIC INTRUSIVE ROCKS hornblende gabbro, tremolite gabbro, pegmatitic gabbro. massive fine-grained gabbro fine-grained gabbro (basalt), porphyry. foliated porphyritic gabbro (may include some 1 and 9--late mafic intrusives)
Early Precambrian	2 2e	FELSIC METAVOLCANICS, unsubdivided tuff, agglomerate and/or volcanic breccia.
Early Precambrian	1 1a 1b	MAFIC TO INTERMEDIATE VOLCANICS, unsubdivided massive lava pillowed lava, vesicular lava
		Area of Outcrop
		Geological Contact
		Geological Contact, from geophysical data
	qv	Quartz Vein
	po	Pyrrhotite
	py	Pyrite
	cpy	Chalcopyrite
	Au	Gold Mineralization

The map shown on Figure 3, on page 10 above was photoreproduced from Ontario Geological Survey Preliminary Maps P.694 (Robb Township) and P. 695 (Jamieson Township).

The Area of the Aslan Robb-Jamieson claims is outlined in black.

Scale of the original OGS sheets and of the map on Figure 3 is 1/4 mile to 1 inch (1:15,840).

TABLE 1



EARTH RESOURCE ASSOCIATES (ERA)

JOHN L. KIRWAN

Figure 4: Isomagnetic contour map of the Aslan Robb-Jamieson claims (black outline) at a scale of 1 inch equals $\frac{1}{4}$ mile and a contour interval of 100 gammas. From OGS sheets P.521 and P.598.

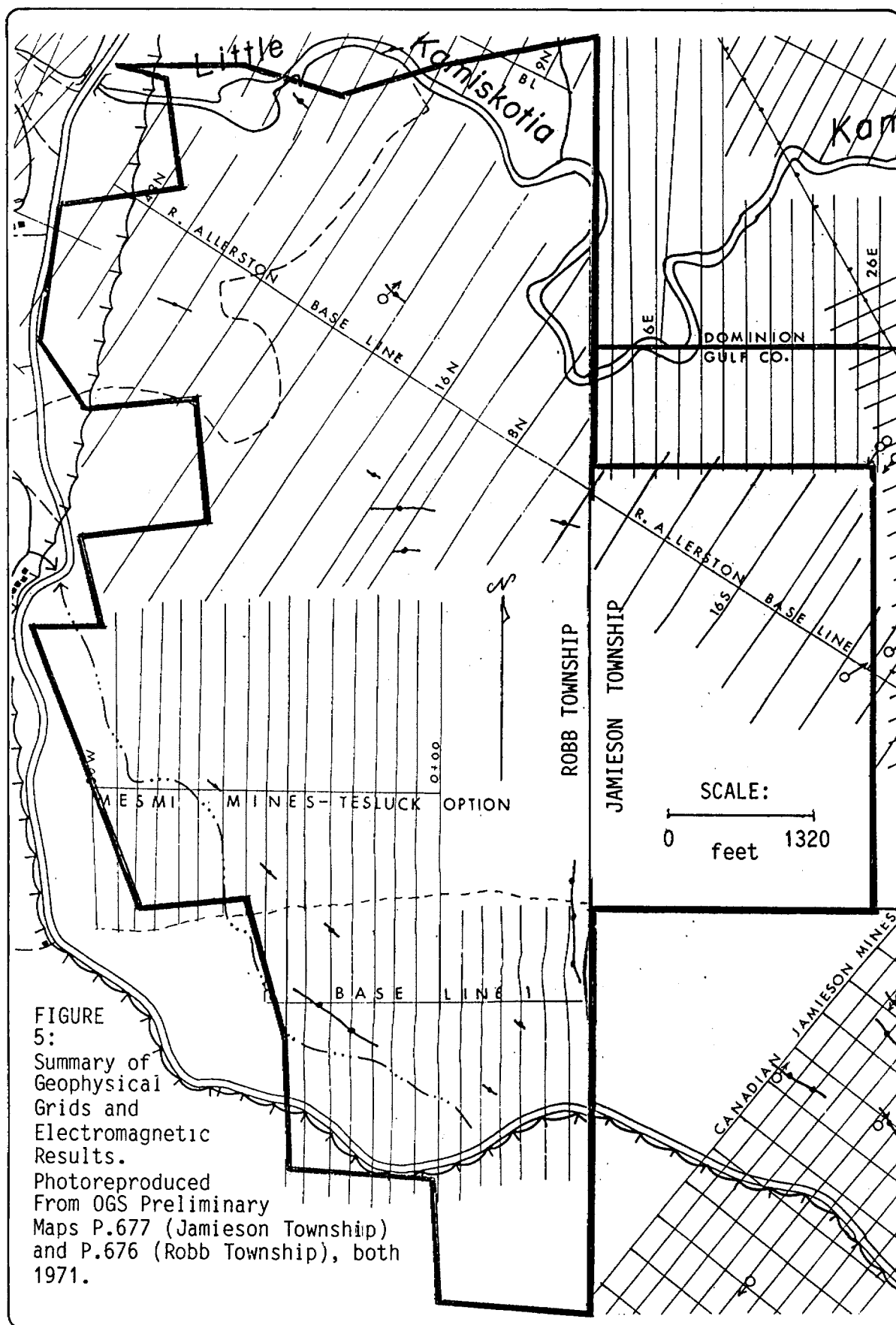


FIGURE 5:
 Summary of Geophysical Grids and Electromagnetic Results.
 Photoreproduced From OGS Preliminary Maps P.677 (Jamieson Township) and P.676 (Robb Township), both 1971.

EARTH RESOURCE ASSOCIATES (ERA)

JOHN L. KIRWAN

The Aslan Robb-Jamieson property, Porcupine Mining Area, Ontario

Aslan claims, is underlain by the core of a structural dome which marks a local centre of volcanism. The dome is now deeply eroded. The core and flanks of such domes are believed to be the loci for the deposition of metallic mineral deposits, such as the gold and porphyry copper deposits at Timmins, the zinc-copper-silver deposit at Kidd Creek, and the massive sulfide deposits in the present area, which include the Kam Kotia mine to the north, the Jameland orebody to the northeast, the Jamieson Mine to the southeast, and the Genex deposit farther to the southeast.

The present ground occupies the contact phase of the large gabbro-granodiorite intrusive which marks the subvolcanic granite at the centre of Kirwan's structural dome, the granodiorite and gabbro being differentiates of the same magma, as petrographic studies have shown (N.Hogg, Geology of Godfrey Township, ODM Vol. LXIII, Part 7, 1954). Volcanic rocks in which the massive sulfide deposits occur occupy the area beyond the contact area, and a granitic porphyry occurs within the gabbro very close to this contact, on the present ground.

North-south-trending diabase dikes cut through the area, including the present claims, commonly occupying coincident north-south strike-slip fault planes (J.L.Kirwan, paper presented to the GAC-MAC Annual Meeting, Montreal, 1969).

ECONOMIC GEOLOGY

1. Regional

The writer believes that the domal relationship between orebodies, briefly described above, can be used as a means of exploring for these orebodies, and has done so successfully in the period 1968 to 1970 in the Timmins area. The locations of these domes can be identified by interpretation of aeromagnetic maps and geological mapping, and mineral exploration can be confined to an oval of ground having a radius of about 5 miles (8 km) from the centres of the domes. The domes also have a periodicity which aids in their location. The domes themselves are centres of volcanism marked by porphyry intrusions, which are probably the feeders for the felsic volcanics. Hydrothermal activity which acc-

ompanied the volcanism, would be responsible for the lode gold deposits adjacent to the porphyry, such as at the major mines at Timmins and, as fumarolic activity, would be responsible for the massive sulfide deposits, such as at Kidd Creek, Kam Kotia, and Jamieson. The massive sulfide deposits which occur in a broad arc northwestward to southeastward from the present ground, attest to the correct environment for such deposits along the flank of the Robb-Turnbull structural dome. This broad arc passes about a mile from the northeast corner of the Aslan claims.

Several indications of the presence of gold and silver mineralization also exist in the area, closer to the centre of the structural dome than the massive sulfide arc: the Lally Mine about 4 miles (6 km) to the south in Turnbull Township from which an unknown amount of gold-bearing rock was removed in the 1910-1914 period, the George Jamieson showing a few hundred feet southwestward from the present ground (see Figure 3, page 10 above), and an unnamed gold-silver-lead-zinc occurrence in Lot 12 of Jamieson Township about ½ mile southeastward. All of these occurrences are within the Robb-Turnbull dome, and the ones close to the Aslan ground are in gabbro close to the contacts of porphyry bodies.

On a regional basis, the presence of a structural dome with porphyry intrusives is thought to make an excellent target area for the exploration for gold deposits with associated base metals and silver. This combination appears to exist on the Aslan ground.

2. Local

a. The 3 patented claims which adjoin the Aslan ground to the north, have been the centre of exploration for gold mineralization by Glory Mines since 1981. Rocks from this ground trend onto the Aslan ground at its northeast corner. On the Glory Mines ground a large pit has been excavated along the contact phase of an ultramafic sheet and intermediate volcanic rocks in which thin regular veinlets occur which contain numerous and regularly spaced flecks of visible gold. Gold assays from grab samples from the Glory Mines showing have been reported as high as 0.344 and 0.68 ounces to the ton by Poetschke and Godbout (see

page 7 above.) To the writer, the mineralization at this showing seems to be erratic, yielding assays in the 0.002 to 0.01 class commonly, but the presence of gold is nonetheless demonstrated and, occurring adjacent to an ultramafic body, may be explored for by means of a magnetometer in a hunt for higher grade concentrations which may occur elsewhere along the contact of the ultramafic body.

b. The Jamieson showing, a short distance southwestward from the ground, was described by F.L. Finley in 1925 (ODM Vol. XXXIV Part VI, Kamiskotia Gold Area) as follows:

"In parts of the aplites there are numerous small quartz veins and stringers, frequently reticulating and tending to form deposits of stockwork type. A good deal of rusty-weathering carbonate and chlorite are associated with the quartz, which is mineralized with pyrite and chalcopyrite. Tourmaline occurs in the aplites but not in the veins. Native gold occurs in many of the veins, frequently in spectacular showings, some of the grains approaching the size of a five-cent piece. The pyrite is also auriferous and when roasted and panned gives a good tail of fine gold. Gold also occurs in small veins cutting gabbro adjacent to the aplite dikes."

Middleton (1973) reports that many of these showings are now covered by the more recently built Highway 576. The occurrence was found in 1913.

c. In Lot 12 of Jamieson Twp., about a half mile southeast of the Aslan ground, discoveries of gold-bearing quartz veins were made in 1920 and 1923 by George Jamieson, which Berry (1944) described in some detail. The vein structures are complicated and persistent along strike, one being traceable some 400 feet northwestward and yielding assays of 0.15 and 0.20 ounces of gold to the ton, though several assays of lower grade are also given. The gold appears to be associated with chalcopyrite, and not with other associated sulfides, including sphalerite. Middleton's map (Sheet 2255) shows this showing to be silver-bearing.

d. On the Aslan ground a showing of copper mineralization, with pyrite, is marked on Middleton's preliminary map (page 10 above) on the township line between Robb and Jamieson. This is listed in his description of the area as a quartz vein occurrence.

e. Also on the Aslan ground, a series of overburden drill holes put down

to bedrock in an attempt to locate lodgement till containing evidence of gold mineralization were drilled by W.O. Karvinen for Glory Mines in 1982. The holes were 78 in number and were drilled along an east-west line along the north edge of claim P.5983 (see Figure 3, page 10 above) and thence east southeastward into Jamieson Township, close to the "cp, py" showing indicated in Figure 3, extending to the east edge of the property. These holes located several areas that were anomalously high in gold, the most persistent being westward from the "cp,py" showing, but others being present both eastward and westward from this area. These anomalous gold values are considered both by Karvinen and the present author as being indicative of the presence of gold-bearing mineralization in the bedrock northward from the anomalous sample location, quite possibly on the Aslan ground.

f. In the same category as the anomalous drill samples is the reported presence of gold-bearing glacial float on the Robb-Turnbull township line southward from the Aslan claims (page 8 above). If the occurrence is genuine it could well indicate the presence of a gold-bearing deposit on the Aslan ground, a fragment from which was transported by glacial action and deposited southward from its bedrock occurrence.

g. Several other notations on the Middleton map (page 10 above) indicate that sulfide mineralization and quartz veining is present on the Aslan ground in the few areas of observed outcrop on the property.

Considering the paucity of outcrop on the Aslan Robb-Jamieson claim group, a remarkable amount of mineralization seems to be indicated to exist on the ground or, using the evidence of overburden drilling, glacial float, or on-strike or nearby occurrences, appears to be possible or likely on the claims. It appears probable, therefore, that a well and carefully conducted exploration program could locate such mineralization. Such a program will be recommended below under the heading of "Recommendations".

EXPLORATION CONSIDERATIONS

Over the years the Aslan ground, or parts of it, have received

considerable exploration activity, in the early years by conventional prospecting, but more recently by geophysical exploration, geological mapping, and diamond drilling. Virtually all of the ground has been covered by ground magnetometer surveys along lines from 200 to 400 feet apart and, in addition, electromagnetic surveys as horizontal loop, vertical loop, and very low frequency coverage. One self potential electrical survey is also known from the ground. Geological mapping has taken place at various times up to 1986. By far the most thorough and informative geological mapping appears to be that of Edward Lyons for Falconbridge Nickel Mines in 1971 (OGS Assessment File T.497).

Almost all of the above work was done for the purpose of locating massive sulfide mineralization with considerable strike length and very strong magnetic or electromagnetic response. The surveys were therefore relatively crude, being along widely spaced lines with readings taken relatively far apart (100 feet) and, in the case of magnetometer surveys, with a coarse contouring interval of 100 gammas. In the writer's opinion such surveying is not particularly suitable for the location of gold mineralization which is in itself a virtually non-existent geophysical target and, when associated with disseminated sulfides, a very difficult target using the methods and standards that have been used on the property in the past. Nevertheless the old surveys contain valuable information that can be interpreted for geological purposes, and this information should be compiled for comparison with the surveys to be recommended below.

The principal reasons for conducting magnetometer surveys are for the identification of geological lithologies and structures, for locating areas of alteration, and less importantly, for locating magnetic sulfides with which gold or base metals might be associated. Extremely detailed surveys are required for these purposes, with a contour interval in the 5 to 10 gamma range and a line spacing of 100 feet or less with readings taken at 25 or 50 foot intervals on those lines. Only in this way may the very subtle features, most notably the sought-for alteration, be recognized.

Structures, such as fault and shear zones, may be located by means

of electromagnetic surveys, most notably by AFMAG and VLF methods, the latter of greatest use if several transmitter sources are used and the field strength component of the electromagnetic field is recorded as well as the dip angle.

Induced polarization surveys can be extremely effective in the hunt for disseminated sulfide occurrences with which gold mineralization is commonly associated, and using the chargeability and resistivity components of the readings in conjunction with data derived from other instruments, may be used to locate alteration in the rocks, which is often associated with gold and base metals mineralization in the area.

The above general points are raised mainly to emphasize that the hunt for many types of mineralization, in particular gold, requires very indirect prospecting methods and extremely careful data gathering, data reduction, and interpretation and integration with other surveys, for an intelligent and cost-effective diamond drilling program to be generated from these data. Incomplete or inadequate surveys may be worse than no surveys at all, since they may not detect the deposits present, and therefore may down grade the property where such is not justified.

In the writer's opinion, the Aslan Robb-Jamieson ground is one of those areas where the most carefully conducted surveys are most justified.

RECOMMENDATIONS

1. So as to accumulate a data base for the interpretation of other surveys, and to form a preliminary geological base for the claims, a compilation of all, or most, of the previous data on the ground should be made at a common scale, notably:
 - a. the Falconbridge geological survey, and the Mining Corp. survey.
 - b. the Kirkland Minerals and Falconbridge Vertical Loop Electromag-
 - c. the Geo-Scientific self potential survey,
 - d. the Mespi Crone JEM survey, and
 - e. all available diamond drill information.

An estimated cost of \$5000 in a time-frame of 1 month is made for this phase of the work.

2. A new magnetometer survey along picket lines 100 feet apart using a magnetometer with a sensitivity of 1 gamma or better and with readings taken at 20 or 50 foot spacings should be made of the entire claim group, the surveys levelled for diurnal variation and presented as contoured maps with a contour interval of 10 gammas, or 5 gammas where justified. This map, at the same scale as the compilation sheets referred to above, would serve as the fundamental interpretation source for the claim block. A cost estimate of \$10,000 for the survey itself is made with an additional cost of \$30,000 for the line-cutting as well. A time-frame of 4 months is estimated.
3. During the same 4 months, Very Low Frequency (VLF) surveys should be made on the same picket lines (which should have a northeastward orientation) using the Crone Radem, or similar unit, and signal sources from both Annapolis, Maryland and Cutler, Maine. Both dip angle and field strength reading should be made, the former data being treated with Fraser filtering to produce a contoured map. The field strength readings should also be presented as a contoured map. A cost estimate of \$15,000 is made for this phase of the recommendations.
4. In areas where sulfide mineralization might be expected from field information or from an interpretation of the above surveys, induced polarization surveys should be conducted using the dipole-dipole electrode array with a spacing of 50 feet and an $n=1, 2, 3, 4, 5$. This survey would most advantageously be over the entire claim block but, considering the high cost of this sort of survey, alternate lines might be used or, as suggested above, restricted areas surveyed. A cost cannot be predicted for this survey because of the variables of coverage, but a budget in the \$30,000 range should initially be considered.
5. Overburden drilling closer to the south boundary of the claims than that already performed on the ground should be performed so as to locate evidence of gold-bearing mineralization. Owing to uncertain-

ies about the amount of overburden present and the number of holes required, a cost estimate of this recommended work cannot now be made. However, a budget in the \$25,000 range is thought to be a reasonable amount.

6. Stratigraphic and speculative diamond drilling may be done at the present time. However, it is recommended that drilling programs, clearing, and stripping operations, or trenching or pitting, be postponed until the interpretation of all available surveys, both new and old, can be made, so that an integrated diamond drilling program can result. Based on an estimate of 10,000 feet of drilling at a cost of \$25 per foot, a preliminary estimate can be made for diamond drilling in the \$250,000 range.
7. In addition to the costs estimated above, which total \$415,000, a further budget should be considered for the purpose of interpretation of data, presentation and report writing, overhead, and contingencies in general, of at least \$50,000, and possibly more, to bring the total estimated exploration cost for the property to a figure close to the \$500,000 range.

All of the above work can be done in winter months in the area, except for the induced polarization survey and stripping and pitting operations.

The Aslan Robb-Jamieson claims are situated in an area containing many indications of the presence of metallic mineralization, including that at several past producing base metals mines nearby. In the writer's opinion the ground represents a first-class exploration target for the discovery of deposits of gold and silver, and occurrences of zinc, copper, and lead mineralization.

Respectfully submitted,

John L. Kirwan
 J. L. KIRWAN

John L. Kirwan
 MSc PhD FRSS PGAC PEng

At Timmins, Ontario
 December 8, 1987

DECLARATION

I, John Laurence Kirwan, of the City of Timmins, Province of Ontario, Canada, and of the Town of Centre Harbor, State of New Hampshire, United States of America, state:

1. that I am a practising Consulting Geologist with offices at 1111 Government Road, Porcupine, Ontario, and at Knockdoe, Old Meredith Road, Centre Harbor, NH.
2. that I am President of Earth Resource Associates which was incorporated in the Province of Ontario in 1976 as John L. Kirwan and Associates Limited.
3. that I have practised my profession as Consulting Geologist continuously since 1972 and as Geologist continuously since 1961.
4. that I am a graduate from Carleton University in Canada with the degree of Bachelor of Science in Geology and Mathematics and from the University of London in England with the degrees of Master of Science and Doctor of Philosophy, both in Geology.
5. that I am a Registered Professional Engineer in the Province of Ontario and a licensed Professional Engineer in the State of New Hampshire and that my license to practise my profession in either jurisdiction is not now, and never has been, in a state of suspension or revocation.
6. that I am a Life Fellow of the Geological Association of Canada, of the Royal Geographical Society, and of the Royal Society of Antiquaries of Ireland, and have been elected a Fellow, Associate, or Member of other professional associations in Canada, England, the USA, and Brazil.
7. that I am familiar with the property in question, having visited it in the field and consulted the relevant published and unpublished material quoted in this report.
8. that the opinions expressed in this report are my own and have not been influenced by other parties or monetary considerations, and
9. that I do not now have, nor do I anticipate receiving, any direct or indirect beneficiary interest in the property.

Respectfully submitted,



John L. Kirwan

#253/87

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.

Doc. 5

2.
The Mill



42A12SE0184 2.10627 JAMIESON

900

Type of Survey(s)
Geological Appraisal; Data compilation

Claim Holder(s)
Aslan Exploration/Development Limited

Address
P.O. Box 1572 Pimmins, Ont. E4N7#7; H.C.-146 Simcoe St. N. Oshawa, Ont.

Survey Company
EARTH RESOURCE ASSOCIATES

Date of Survey (from & to)
15 Day 08 Mo. 87 Yr. 15 Day 10 Mo. 87 Yr.

Name and Address of Author (of Geo-Technical report)
Dr. J.L.Kirwan, P.O.Box 2150, TIMMINS, Ontario, P4N 7X8

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

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OCT 27 1987

MINING LANDS SECTION

Note: Special provisions credits do not apply to Airborne Surveys.

	Days per Claim
Electromagnetic	
Magnetometer	
Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
	854453	0
	854454	0
	854455	0
	854456	0
	854457	0
	854458	0
	854459	0
	854460	0
	854461	0
	854463	0
	854464	0
	854465	0
	854466	0
	854467	0
	854468	0
	854469	0
	854470	0
	854471	0
	854472	0
	894647	20
	894648	20
	894649	20
	894650	20

Prefix	Mining Claim Number	Expend. Days Cr.
	894651	20
	894652	20
	894653	20
	894654	20
	894655	20
	894656	20
	894657	20

ONTARIO GEOLOGICAL SURVEY
ASSESSMENT FILED
RECORDS SECTION
FEB 4 1988
RECEIVED

RECORDED
OCT 16 1987

Expenditures (excludes power stripping)

Type of Work Performed
GEOLOGICAL APPRAISAL

Performed on Claim(s)
854453-854472
894647-894657

Calculation of Expenditure Days Credits

Total Expenditures	Total Days Credits
\$ 3300	220

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

FORCUPINE MINING DIVISION
RECEIVED
For Office Use Only
Total Days of Work Recorded
220
Date Approved as Recorded
Oct 16/87
J. Feb 88

Total number of mining claims covered by this report of work. **30**

Date
October 15 '87

Recorded Holder or Agent (Signature)
[Signature]

Mining Recorder
[Signature]

Branch Office
[Signature]

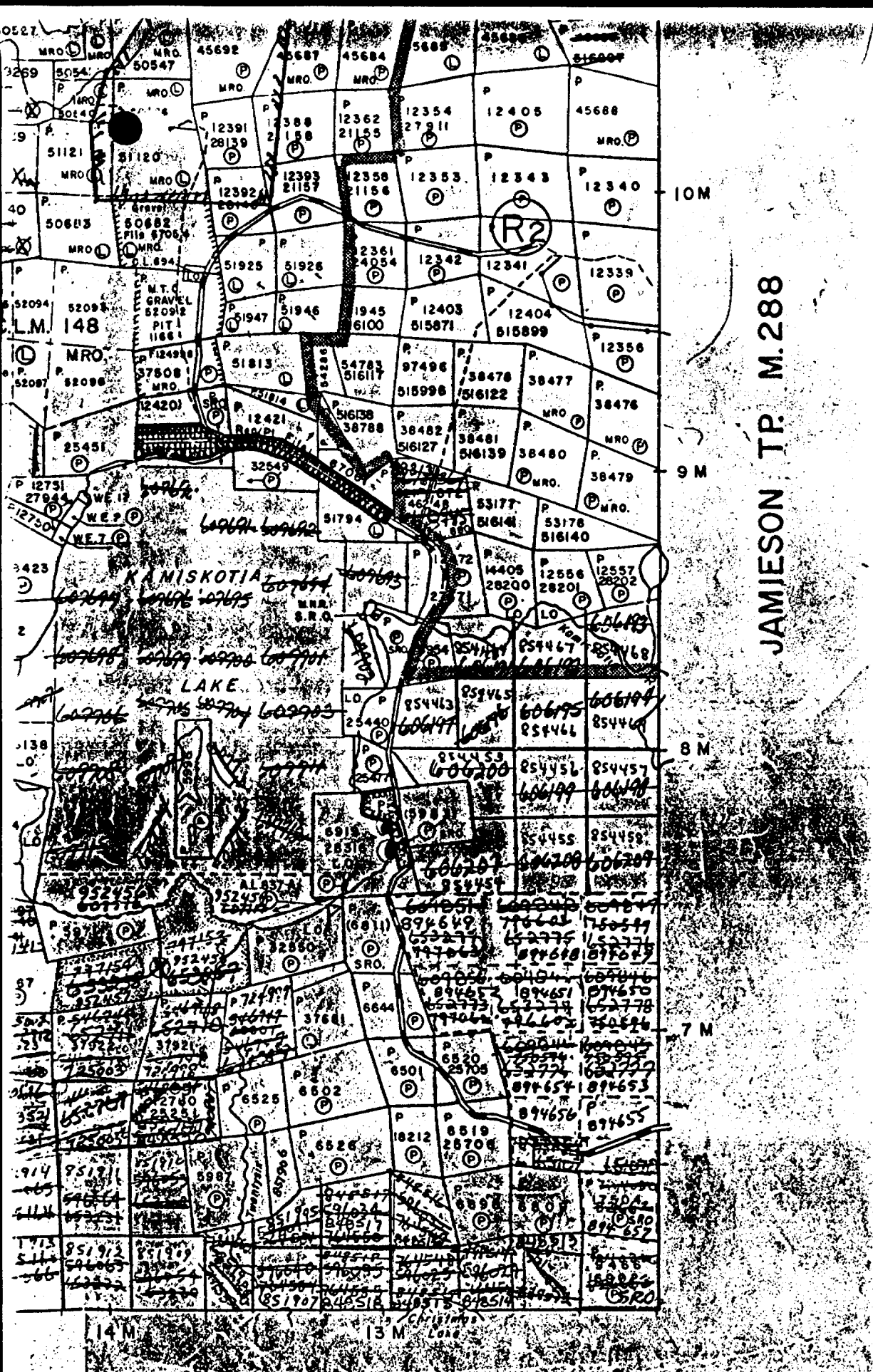
Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying
J.L.Kirwan, 1111 Government Road, Porcupine, Ontario

Date Certified
October 15, 1987

Certified by (Signature)
[Signature]



REGISTERED PLAN (L.E.)
 PATENTED LAND
 CROWN LAND SALE
 LEASES
 LOCATED LAND
 LICENSE OF OCCUPATION
 MINING RIGHTS ONLY
 SURFACE RIGHTS OF
 ROADS
 IMPROVED ROADS
 KING'S HIGHWAYS
 RAILWAYS
 POWER LINES
 MARSH OR MUSKEG
 MINES
 CANCELLED
 PATENTED for S.R.O.
Lillip

JAMESON TR. M.288

400' Surface Rights
 of all lakes and riv

Areas withdrawn
 42 of the Minin
 File

This township lies
 of CITY of TIMM

RESERVATIONS:
 1-100543

R1 - S.R.O. REC

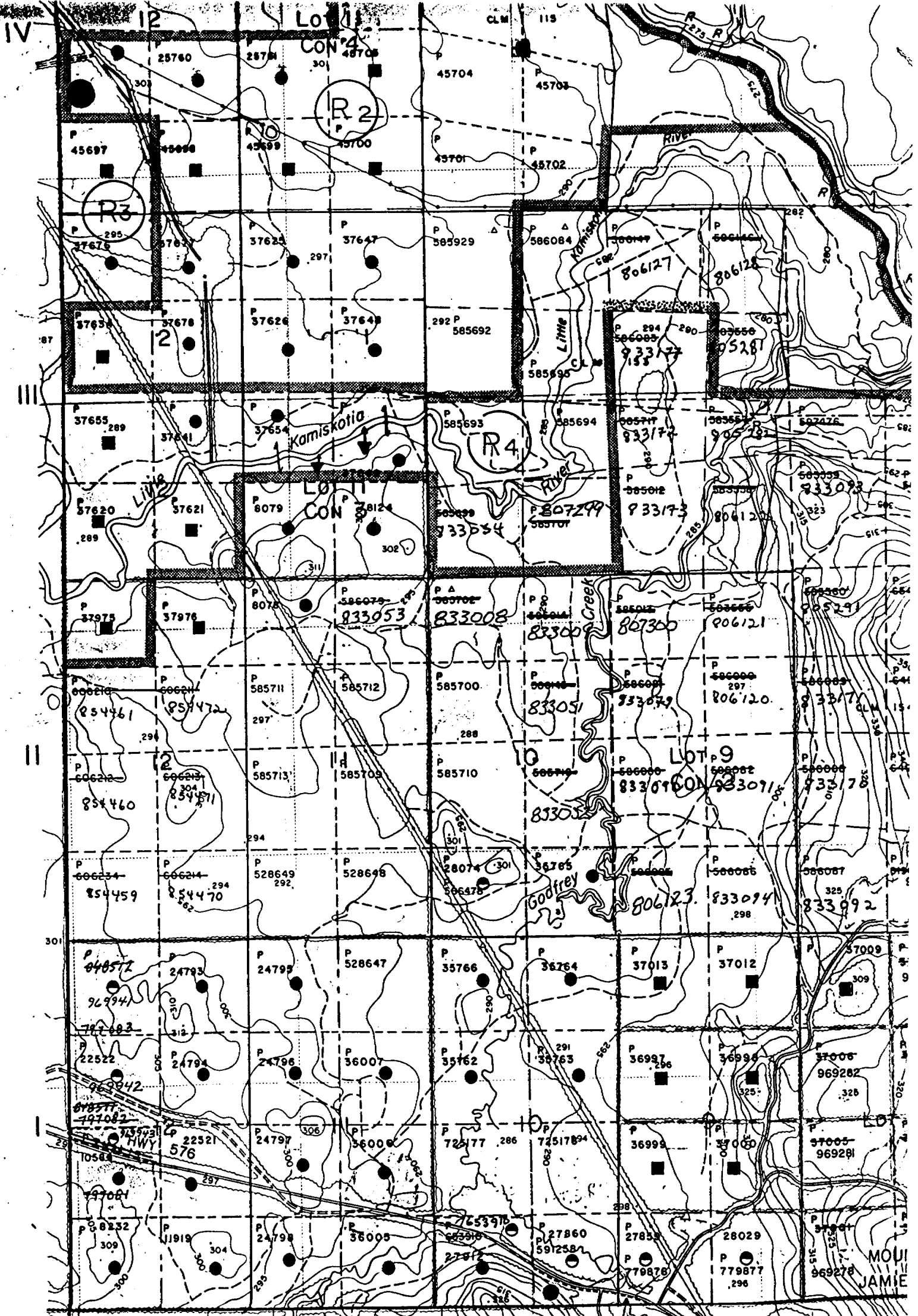
PLAN N

(R2) ORDER OF THE
 MINING AND
 SECTION 36,
 ORDER NO. W
Oct 4/79. Rice

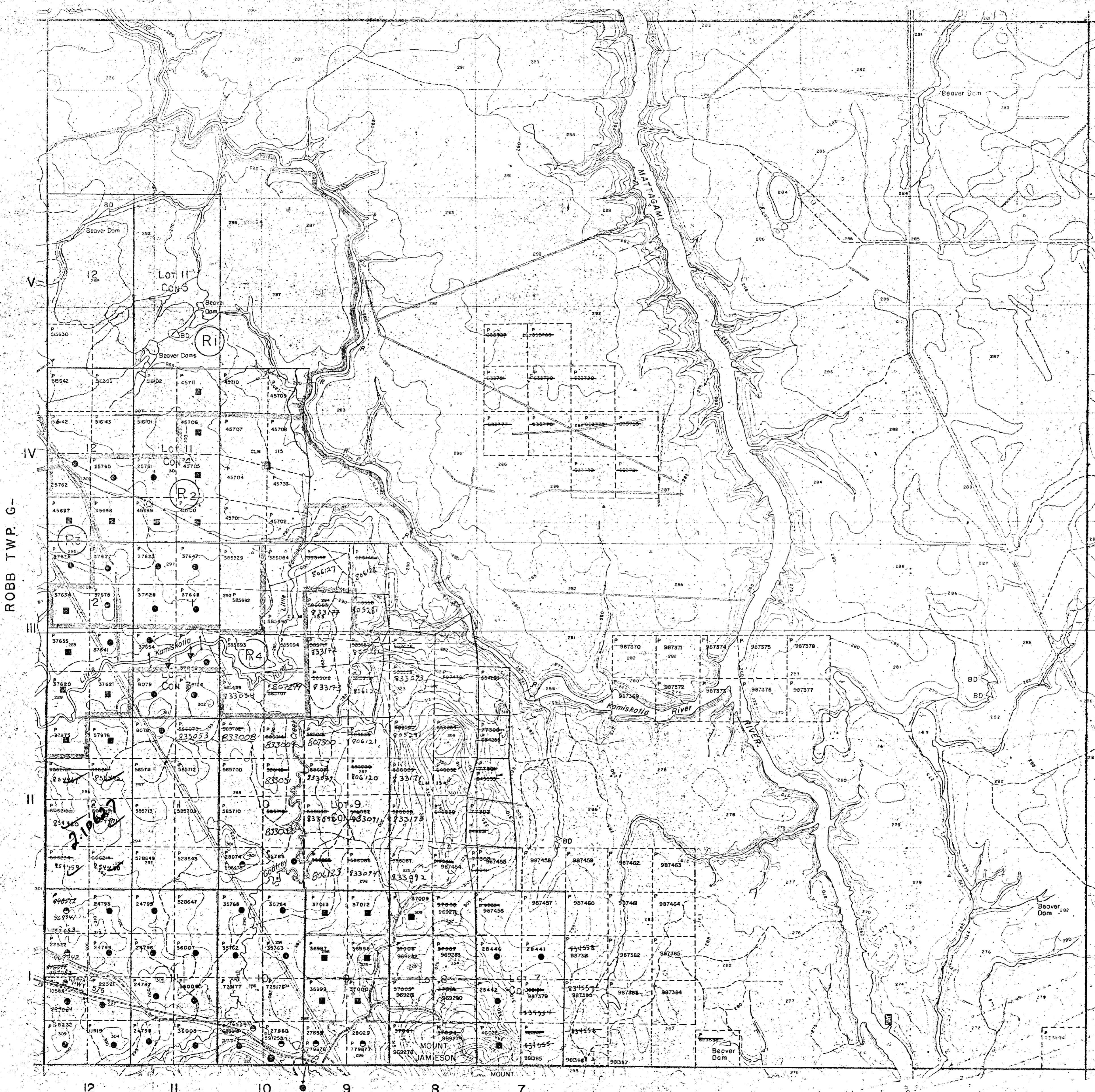
PLAN N

MINISTRY OF M
 SURVEYS AN

ROBB TWP. 5



MOUI JAMIE



ROBB TWP. G-

JESSOP TWP. G-3984

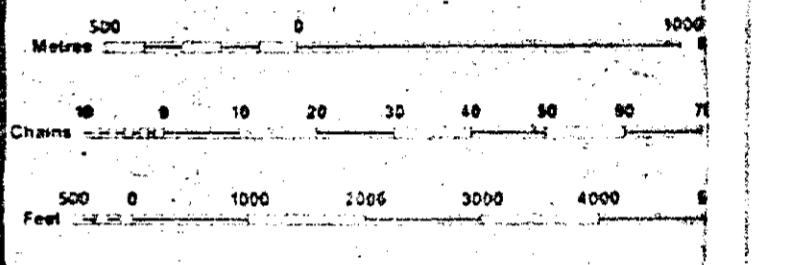
LEGEND

HIGHWAY AND ROUTE NO.	
OTHER ROADS	
TRAILS	
SURVEYED LINES:	
TOWNSHIPS, BASE LINES, ETC.	
LOTS, MINING CLAIMS, PARCELS, ETC.	
UNSURVEYED LINES:	
LOT LINES	
PARCEL BOUNDARY	
MINING CLAIMS ETC.	
RAILWAY AND RIGHT OF WAY	
UTILITY LINES	
NON-PERENNIAL STREAM	
FLOODING OR FLOODING RIGHTS	
SUBDIVISION OR COMPOSITE PLAN	
RESERVATIONS	
ORIGINAL SHORELINE	
MARSH OR MUSKEG	
MINES	
TRAVERSE MONUMENT	

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

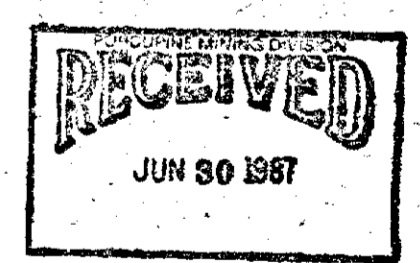
NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO 1912, VESTED IN ORIGINAL PATENTEES BY THE PD LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBS.



SCALE 1:20 000

NOTES

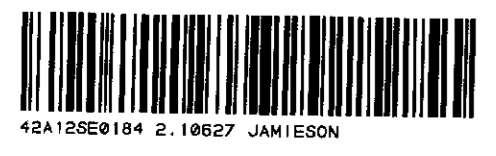
FLOODING RIGHTS TO AREAS ALONG THE MATTAGAMI RIVER TO H.E.P.C.



TOWNSHIP **210627**
JAMIESON
 M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
 MINING DIVISION
PORCUPINE
 LAND TITLES / REGISTRY DIVISION
COCHRANE

Ministry of Natural Resources
 Land Management Branch
 Ontario

Date FEBRUARY, 1984
 Number **G-39**



LOVELAND TP. M.293

THE TOWNSHIP OF 2.10627

ROBB

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

- REGISTERED PLAN OF SUBDIVISION
- PATENTED LAND
- CROWN LAND SALE
- LEASES
- LOCATED LAND
- LICENSE OF OCCUPATION
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED
- PATENTED BY S.R.O.

NOTES

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

File	Date	Disposition

This township lies within the Municipality of CITY of TIMMINS.

RESERVATIONS

R1- S.R.O. REOPENED FOR STAKING

PLANNED REFORESTATION APR. 14/82

R2 ORDER OF THE MINISTER WITHDRAWS MINING AND SURFACE RIGHTS UNDER SECTION 36, The Mining Act, R.S.O. 1980 ORDER NO. W. 27/87 SR March 14/87

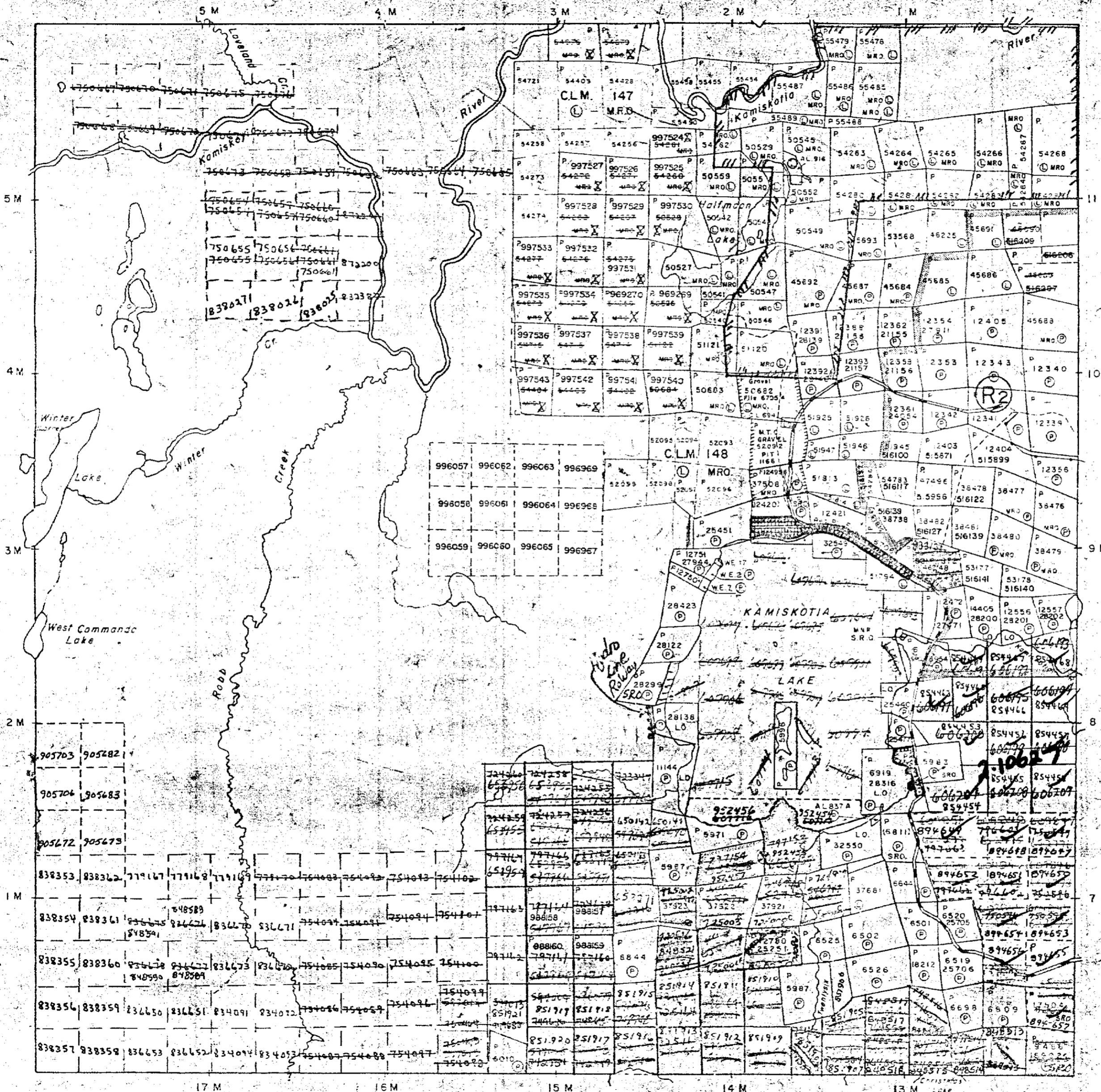
Oct 4/89. Approved

PLAN NO. M.309

MINISTRY OF NATURAL RESOURCES SURVEYS AND MAPPING BRANCH

COTE TP. M.271

JAMIESON TP. M.288



42A125E0184 2.10627 JAMIESON

BULL TP. M.316