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REPORT ON

AUGUST 1984

DIAMOND DRILL PROGRAM

McINTYRE BIRCH LAKE PROPERTY

RED LAKE MINING DIVISION, ONTARIO

(NTS 52-N-8)

FOR

CARMAC RESOURCES LIMITED

A.W. Dean, P.Eng.

September 30, 1984

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TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	1
INTRODUCTION	2
PROPERTY	3
LOCATION AND ACCESS	4
TOPOGRAPHY AND TIMBER	4
HISTORY	6
GENERAL GEOLOGY	7
PROPERTY GEOLOGY	8
DIAMOND DRILL PROGRAM	8
MINERALIZATION	11
Previous Drilling	11
Current Drilling	13
CONCLUSIONS AND RECOMMENDATIONS	14
CERTIFICATE	16
ILLUSTRATIONS	
Figure 1	3
Figure 2	5
Figure 3	9
Figure 4	10
Figure 5	12
Figure 6A-6F	in pocket
APPENDICES	
APPENDIX I	17
Reference List	
APPENDIX II	18
Drill Hole Survey Data	
APPENDIX III	in pocket
Diamond Drill Hole Logs	
APPENDIX IV	19
Core Samples and Assay Results	

SUMMARY

The McIntyre Birch Lake property consists of eight patented mining claims located 70 air miles northeast of Red Lake, Ontario.

The property lies within part of the Birch-Uchi Lakes belt containing metavolcanic-metasedimentary rocks which are Early Precambrian in age. The Argosy mine, located three miles northwest of the property, operated intermittently from 1934 to 1952 milling 250,903 tons with an average recovery grade of 0.334 oz. Au per ton.

Rock types on the property generally strike east-west to north 55 west and consist mainly of mafic to intermediate metavolcanics with iron formation in places.

Following the discovery of gold on the property in 1928 several exploration programs were undertaken on the property. Gold occurs within a main shear zone some 300 feet wide associated with sections containing narrow quartz stringers and arsenopyrite mineralization.

In early April, 1984 drill holes 84-5 and 84-6, located 100 feet apart, in an unexplored area outlined a mineralized section with appreciable gold values over mineable widths. (Hole 84-5 intersected an estimated true width of 11.8 feet assaying 0.506 oz. Au per ton, cut to 1 oz. per ton).

During August 1984, ten diamond drill holes totalling 4,165 feet were drilled, mainly in the untested area to determine strike and grade continuity of the mineralization intersected in holes 84-5 and 84-6.

Results of the drill program were discouraging establishing the mineralized sections to be discontinuous with no economic tonnage potential.

No further work is recommended.

INTRODUCTION

In early April, 1984 diamond drill holes 84-5 and 84-6, located 100 feet apart, outlined a mineralized section with encouraging gold values over mineable widths. (hole 84-5 intersected a section with an estimated true width of 11.8 feet assaying 0.506 oz. Au per ton cut to 1.0 oz per ton). These holes were located within a main shear zone in an overburden covered area that remained untested over a strike length of 1,000 feet. (1)

During the period August 9 to 25, 1984, ten diamond drill holes totalling 4,165 feet were drilled, mainly in the untested area, to determine strike and grade continuity of the mineralization intersected in holes 84-5 and 84-6.

The author was on the property as a geological consultant supervising both 1984 drill programs.

The following report reviews previous work and covers the results of the August 1984 diamond drill.

References to reports and records used by the author have been referenced by code numbers in parenthesis. The list of references with corresponding code numbers are contained in Appendix I.

PROPERTY (FIGURE 1)

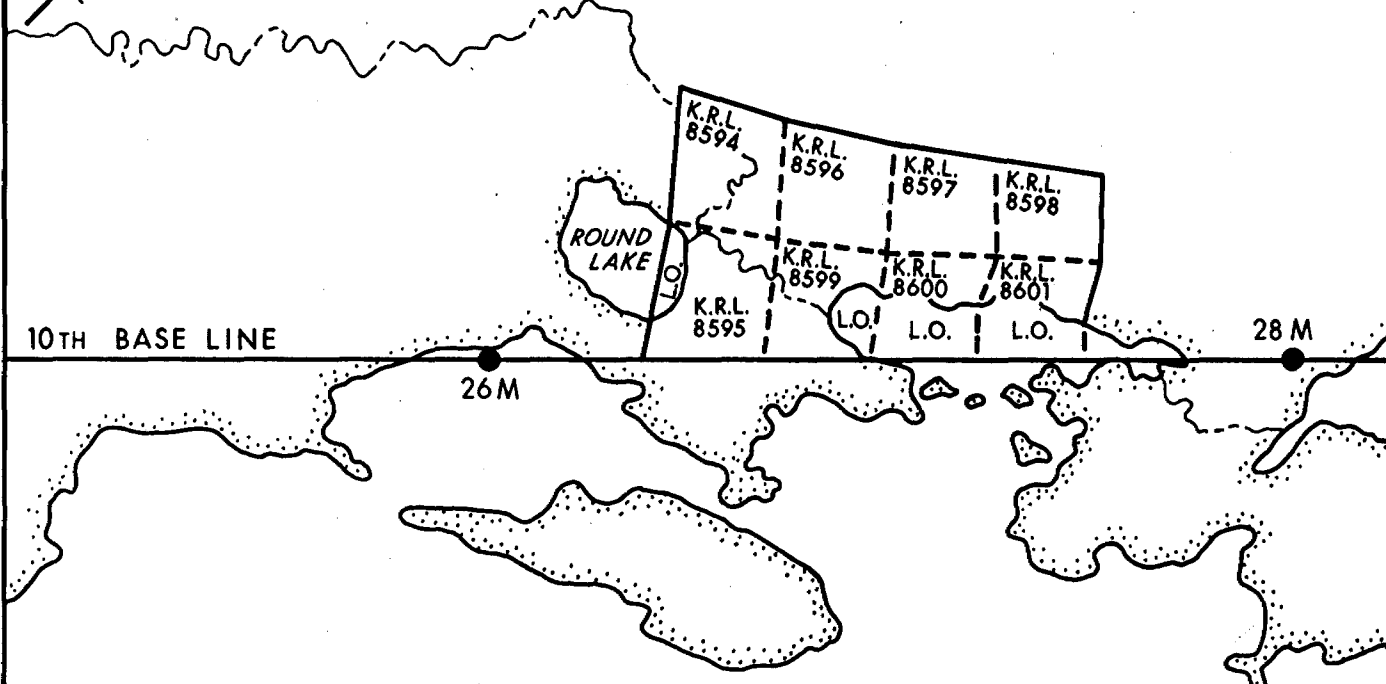
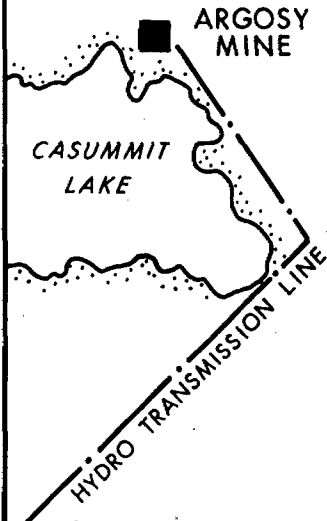
The property consists of eight patented mining claims covering 398.92 acres and four licenses of occupation over water covering 69.26 acres as follows:

<u>Parcel No.</u>	<u>Patent No.</u>	<u>Claim No.</u>	<u>Acreage</u>
421	8332	KRL8594	56.83
422	8333	KRL8595	60.68
423	8334	KRL8596	51.40
424	8336	KRL8597	45.58
425	8337	KRL8598	40.50
426	8338	KRL8599	50.40
427	8339	KRL8600	47.95
428	8340	KRL8601	45.57
	TOTAL		<u>398.91</u>

92° 17'



51° 28' N



10TH BASE LINE

26M

28M

BIRCH LAKE

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REF.: CLAIM MAP NO. G-1751
MINISTRY OF NATURAL RESOURCES
ONTARIO

CARMAC RESOURCES LIMITED

MCINTYRE BIRCH LAKE PROPERTY
PLAN MAP OF CLAIMS

FIG. 1



BY: A.W. DEAN

SCALE: 1" = 1/2 Mile

DATE: SEPT. 1984

N.T.S. MAP NO. 52-N-8

Over lake waters the following Licences of Occupation are held:

<u>Claim No.</u>	<u>L.O.No.</u>	<u>Water Acreage</u>
KRL8595	3213	8.96
KRL8599	3214	7.50
KRL8600	3215	27.39
KRL8601	3216	25.41
	TOTAL	<u>69.26</u>

The property is currently held by Carmac Resources Limited under an option agreement with the owners, McIntyre Mines Limited.

LOCATION AND ACCESS (Figure 2)

The property is located on the north end of Birch Lake, 70 air miles northeast of Red Lake, Ontario and 35 air miles north of South Bay, Ontario.

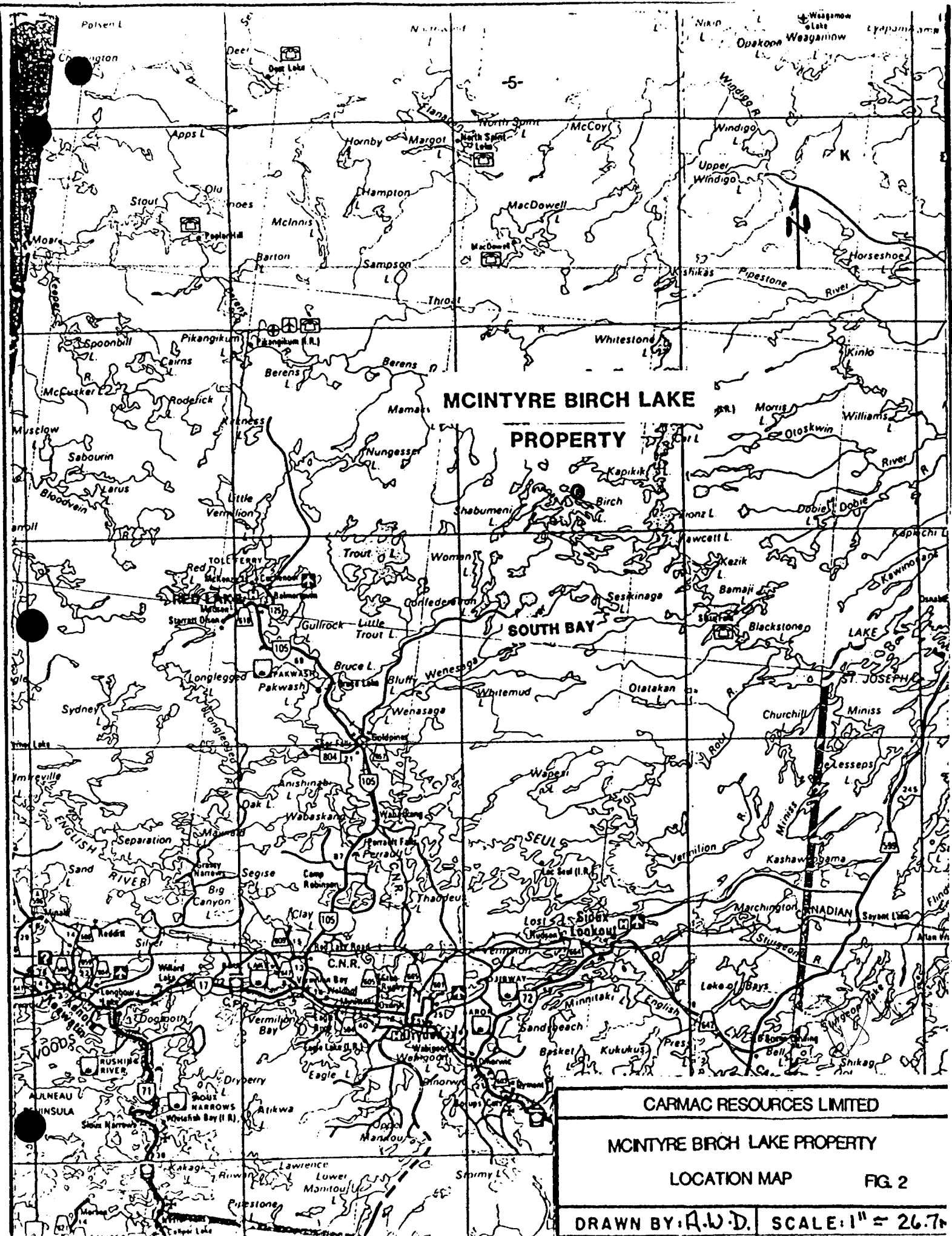
Access is by bush plane from Red Lake and feasible in winter by tractor from South Bay.

A hydro transmission line, in use at the Argosy mine until 1952, is located two miles northwest of the property.

TOPOGRAPHY AND TIMBER

The relief within the area is generally low with drainage sluggish and muskeg common. Some rock cliffs some 25 feet high exist however the terrain is generally flat to undulating where bedrock occurs near surface. Maximum relief above lake water level is some 60 feet.

The property is covered for the most part by conifers with a few scattered poplar and birch trees.



MCINTYRE BIRCH LAKE

PROPERTY

SOUTH BAY

CARMAC RESOURCES LIMITED

MCINTYRE BIRCH LAKE PROPERTY

LOCATION MAP FIG 2

DRAWN BY: A.W.D. SCALE: 1" = 26.7

Forest growth is generally poor as it is limited by swampy ground and shallow overburden covering bedrock. Usually conifer stump diameters are in the 6 to 8 inch range with the largest some 35 feet high.

HISTORY

Following the discovery of gold on the property in 1928 several exploration programs were undertaken on the property. The following is a historical summary, for the most after Thorpe. ⁽²⁾

- 1928 Discovery of gold-bearing quartz vein by Jack Miller, a McIntyre prospector. A boundary survey was completed in September and the claims brought to patent.
- 1929 Extensive prospecting and trenching by McIntyre personnel led to the discovery of other veins along the general strike.
- 1931 Five diamond drill holes at 300 foot spacing were put down northwest of line 20 west totalling 1,954 feet. One ore intersection, 0.38 ounces of gold over 13 feet, in hole No. 31-4 was obtained.
- 1934 Property leased to Cooper and Barry. A 60-foot vertical shaft was sunk and a 20 ton mill erected which produced at least 200 ounces of gold. Tailings suggest 1,200 tons were processed. A drift was driven approximately 50 feet below surface from the shaft area on line 20 west for a horizontal distance of 155 feet, only part of which was ore grade. Evidently most of the mill feed came from surface trenches.
- 1935 Approximately 2000 feet of diamond drilling was carried out by Cooper along the main shear zone strike. The results must have been discouraging as the property was returned to McIntyre afterwards.

- 1940 McIntyre put down 7 holes totalling 3,185 feet along the main shear zone strike between lines 27 west and 33 west to test the previously known veins for continuity. Occasional erratic values were intersected but these could not be correlated from hole to hole.
- 1975 A McIntyre field crew carried out a program of soil sampling, geophysical surveying, blasting, rock sampling and geological mapping. An H.E.M. survey indicated some conductivity in bands of iron formation. Several quartz-diorite intrusives were located by prospecting. These had not been recorded previously.
- 1983 Two holes 83-1 and 83-2 collared at line 16+20W totalling 1,504 feet were drilled north of the shaft shear zone area. A five foot section in hole 83-1 between 408 and 413 feet assayed 0.288 oz Au per ton.
- 1984 Six holes totalling 2,380 feet were drilled in March/April prior to break up. Holes 84-5 and 84-6 intersected encouraging gold values.

GENERAL GEOLOGY

Bedrock in the area is Early Precambrian in age and is part of the Birch-Uchi Lakes metavolcanic-metasedimentary belt within the Uchi Subprovince (3). The rock units within the vicinity of the property consist mainly of mafic and intermediate metavolcanics and magnetite rich iron formation extending easterly from Mink Lake to the north end of Birch Lake. Overlying these units to the north are clastic metasediments. Based on limited outcrop exposures and airborne magnetic data (4) a quartz-porphyry intrusive, some four miles long by one mile wide, is inferred to occur immediately west of the west boundary of the property.

Within the belt gold occurrences have been reported over a strike length of at least five miles from east to west. The Argosy mine, located three miles northwest of the McIntyre property, operated intermittently from 1934 to 1952. The mine produced 83,827 troy ounces of gold and 1,471 troy ounces of silver from 250,903 tons milled (3).

The average recovery grade over the period was 0.334 troy ounce gold and 0.006 troy ounce silver per ton. Ore was mined underground from several north trending quartz veins that extended to depths of 900 feet.

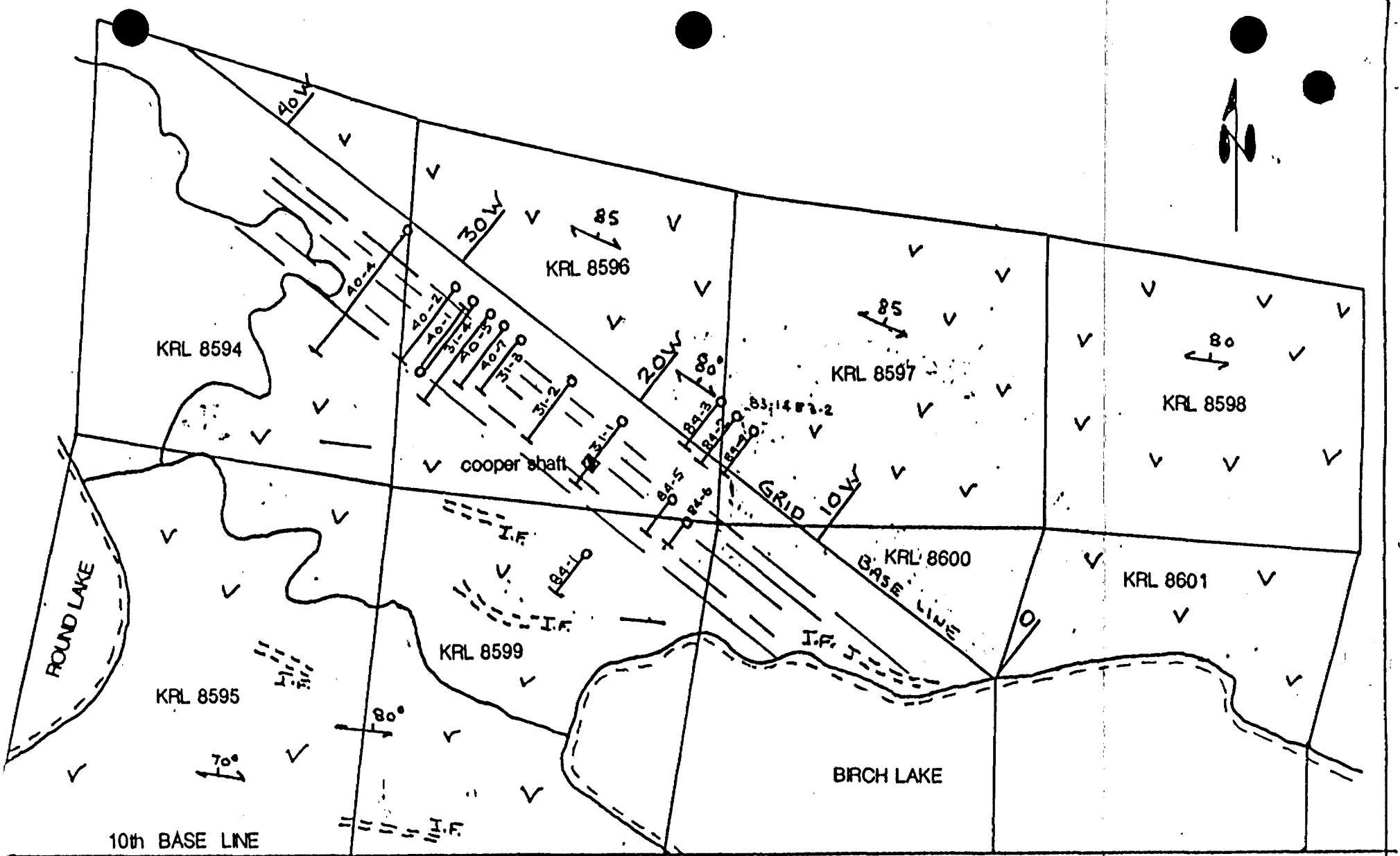
PROPERTY GEOLOGY (Figure 3)

Rock types on the property consist mainly of mafic to intermediate metavolcanics generally striking east-west to north 55 west and dipping steeply 80 northeast. The metavolcanics commonly occur as chloritic schists. Trenching and diamond drilling has outlined weak to moderate shearing in a zone some 600 to 700 feet wide traversing the property apparently conformable to flow contacts. Within this zone is a main shear zone some 300 feet wide in which the Cooper shaft is located.





Banded iron formation has been mapped in several outcrops and has been outlined in diamond drill holes. The iron formation occurs as alternating thin bands of magnetite, sugary or cherty quartz and chlorite. The formation is generally narrow however attains a thickness of ten feet or more in places. The iron formation units for the most part appear to conform to the enclosing volcanics. Ground magnetic survey data and subsequent drilling indicates several bands of iron formation trending east-west converges with the main shear zone around line 15 west.

DIAMOND DRILL PROGRAM

Ten diamond drill holes totalling 4,165 feet (B.Q. core size) were drilled during the period August 9 to 25, 1984. Nine drill holes numbered 84-7 to 84-14 inclusive and 84-16, were drilled at minus 50 degrees on a grid pattern southeast of the Cooper shaft in the vicinity of holes 84-5 and 84-6 (Figure 4). The drill hole collar locations were spotted on a local survey grid established with a transit. The nine holes are located for the most part on grid lines spaced 100 feet apart. They tested the main area of interest over a strike length of 600 feet to a maximum depth of some 300 feet.

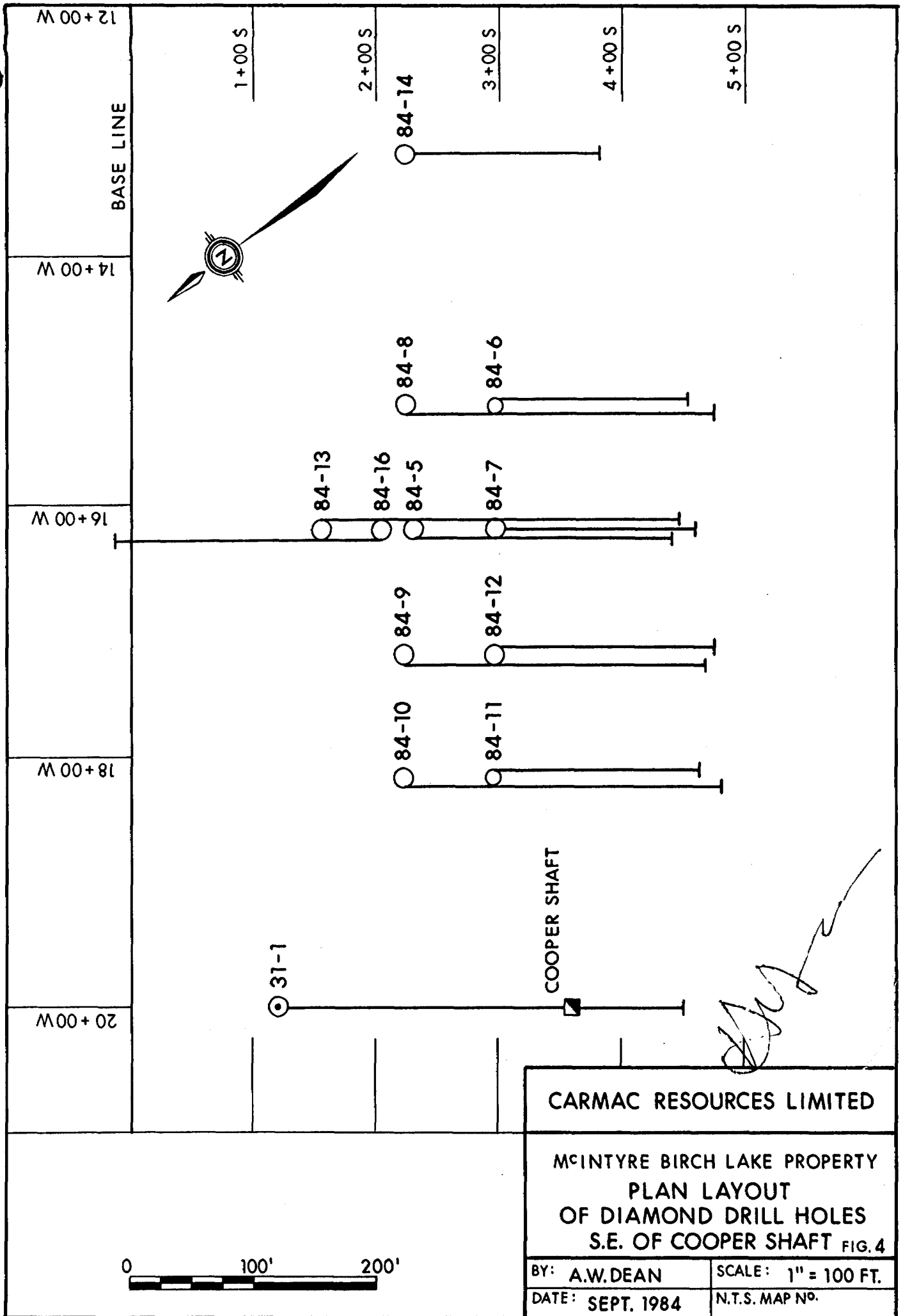


LEGEND

-  Metavolcanics - Mafic & Intermediate
-  Iron Formation
-  Main Shear Zone
-  Diamond Drill Hole

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CARMAC RESOURCES LIMITED	
MCINTYRE BIRCH LAKE PROPERTY	
PLAN MAP PROPERTY GEOLOGY FIG.3	
DRAWN BY: A.W.D.	SCALE: 1" = 600'
DATE: April 30/84	N.T.S. 52-N-8



Hole 84-15 located at 1+00 South on line 35+00 West (Figure 5) was drilled south 37 degrees west at minus 50 degrees to 1,000 feet. The hole was undertaken to test the northwest extension of the main shear zone where an east-west shear zone on the adjoining Argosy property was inferred to project onto the McIntyre property.

Drill hole survey data is listed in Appendix II. Diamond drill hole geological logs in meters are contained in the pocket as Appendix III. Geological and assay sections showing the drill holes are presented in Figures 6A to 6F.

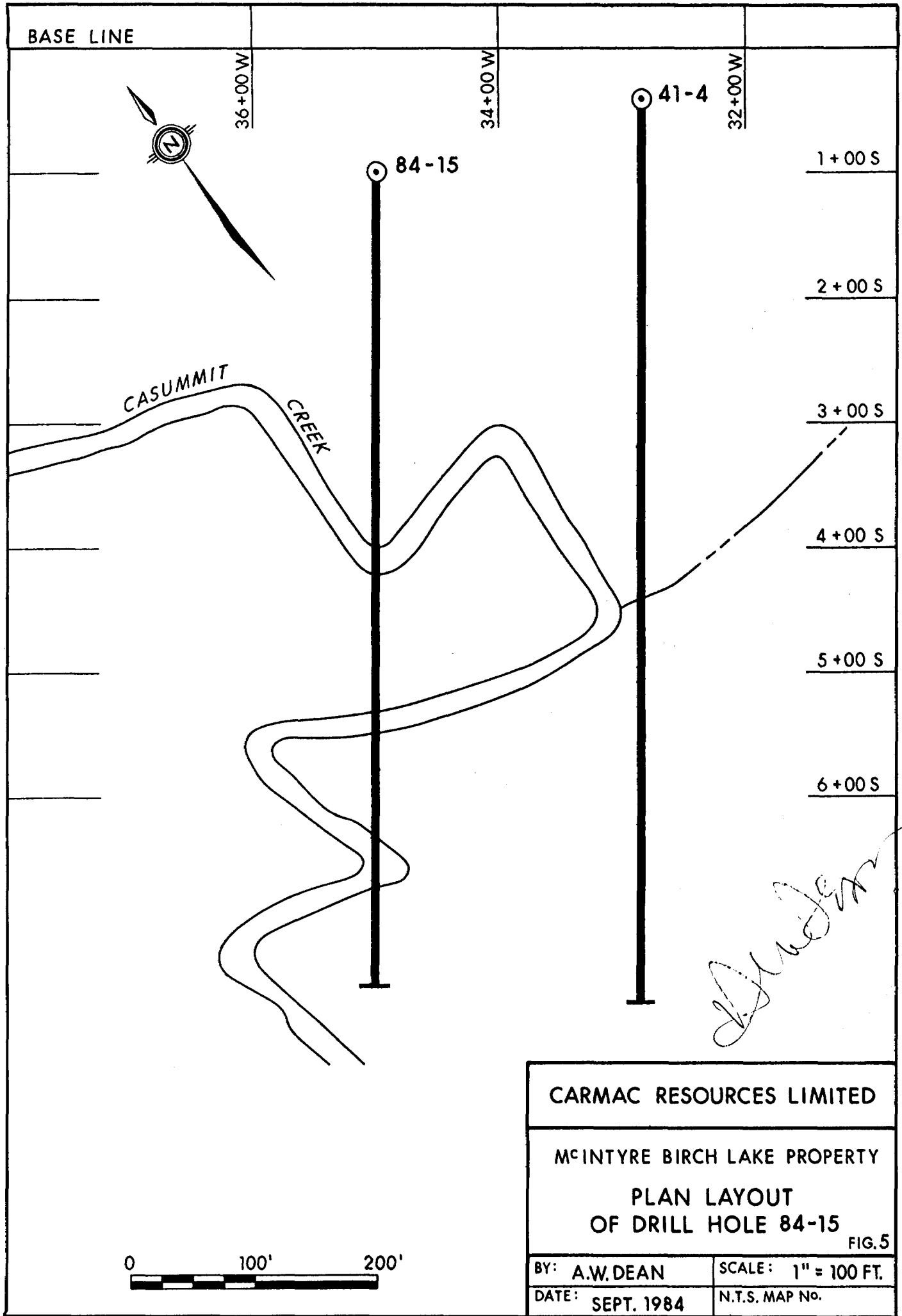
MINERALIZATION

Previous Drilling

The main shear zone, some 300 feet wide, was explored prior to 1984 by trenching and angle hole diamond drilling for 1,400 feet on strike northwest of the Cooper shaft on line 20 west.⁽⁵⁾ Several narrow quartz veins were encountered with a few individual sections mineralized with arsenopyrite, pyrite and occasionally visible gold. The better significant intersections are reported to assay as follows:

<u>Hole No.</u>	<u>Sample Width</u> (feet)	<u>Gold</u> oz. per ton
31-4	13.2	0.38
40-1	0.7	0.23
40-1	1.0	0.83
40-4	1.0	0.93
40-5	2.7	0.20

In early April 1984, diamond drill holes 84-5 and 84-6 were drilled at minus 50 degrees to test the projected main shear zone in an overburden covered area 350 feet southeast of the Cooper shaft. Drill hole 84-5



intersected two sections containing narrow quartz veins, arsenopyrite and pyrite mineralization, and visible gold in two places. Drill hole 84-6 drilled 100 feet south of 84-5 intersected the same sections however they were not as well mineralized. Assays of the better mineralized sections are summarized below: (1).

<u>Hole No.</u>	<u>Core Interval</u> (feet)	<u>Sample Width</u> (feet)	<u>Gold</u> oz per ton uncut	<u>Gold</u> oz per ton cut to 1 oz.
84-5	213.2-219.5	6.2	0.098	0.098
	263.1-267.2	4.1	1.078	1.000
	269.0-284.8	15.8	0.710	0.340
	288.4-293.3	4.9	0.204	0.204
84-6	97.8-101.4	3.6	0.218	0.218
	113.8-114.8	1.0	0.130	0.130
	177.8-181.1	3.3	0.066	0.006
	182.7-186.7	4.0	0.108	0.108

Current Drilling

The results of the August drilling program were extremely disappointing. A complete list of fifty-five samples assayed are contained in Appendix IV.

In the area southeast of the Cooper shaft, narrow quartz veins with arsenopyrite and pyrite mineralization was encountered in only four of nine holes drilled. The drilling established that the mineralization previously outlined in holes 84-5 and 84-6 has limited continuity in both strike and down dip projections within the main shear zone. Widths and corresponding assays of mineralized sections intersected in the August 84 program are sub-economic as listed below. (Assays greater than 0.050 oz. per ton).

<u>Hole No.</u>	<u>Core Interval</u> (feet)	<u>Sample Width</u> (feet)	<u>Gold</u> oz. per ton
84-7	54.1- 56.9	2.8	0.132
	68.6- 69.9	1.3	0.108
84-9	187.3-189.3	2.0	0.270
	199.8-200.8	1.0	0.088
	225.7-226.7	1.0	0.054
	253.7-254.7	1.0	0.052
	325.0-326.0	1.0	0.670
84-10	153.5-155.1	3.4	0.080
	178.8-180.7	1.9	0.094
	186.3-189.3	3.0	0.064
	251.2-261.7	10.5	0.055
	264.4-266.0	1.6	0.062
84-14	155.1-156.1	1.0	0.064

Several thin bands of magnetite rich iron formation, 1.0 to 3.0 feet wide, were intersected within meta-volcanics from section 17+20 west to 13+20 west. They appear discontinuous yet generally striking east-west converging with the main shear zone. Those containing pyrite were sampled with assays ranging from 0.020 oz. Au per ton to nil.

Hole 84-15 drilled on Section 35+00 west encountered one intersection with arsenopyrite assaying 0.052 oz. Au per ton over 1.7 feet. Evidence of the projected east-west shear from the Argosy property was not encountered.

CONCLUSIONS AND RECOMMENDATIONS

The August 1984, diamond drill program effectively tested the main shear zone southeast of the Cooper shaft where significant gold assays over mineable widths were previously outlined in holes 84-5 and 84-6. The narrow quartz veins with arsenopyrite and pyrite mineralization were established to be discontinuous with subeconomic gold values over mineable widths.


Thin bands of magnetic rich iron formation that occur within the metavolcanics from section 17+20 west to 13+20 west are not of economic significance. They appear discontinuous yet generally strike east-west converging with the main shear zone. Those containing pyrite were sampled with assays ranging from 0.020 oz. Au per ton to nil.

Hole 84-15, drilled at minus 50 degrees to 1,000 feet on section 35+00 west, tested the north west extension at the main shear zone. Only one intersection with arsenopyrite was encountered assaying 0.052 oz. Au per ton over 1.7 feet.

The main shear zone has been adequately explored establishing that the mineralized veins are discontinuous without ore reserve tonnage potential.

No further work is recommended.

Respectively submitted,



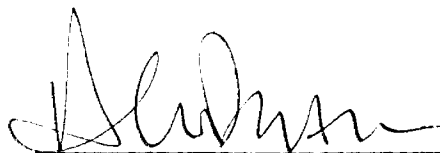
A. W. Dean, P.Eng.

CERTIFICATE

I, Alexander W. Dean of 1327 Lake Bonavista Drive S.E., Calgary, Alberta, do hereby certify that:

1. I am a graduate of the Michigan Technological University holding a B.Sc. in Geological Engineering, 1958.
2. I am registered as a Professional Geologist of the Province of Alberta, and registered as a Professional Engineer of the Province of British Columbia.
3. I have practiced my profession for 26 years mainly in Canada and the U.S.A.
4. The accompanying report is based on my personal analysis of unpublished data provided by Carmac Resources Limited, reports and maps available from government sources and my direct geological supervision of two diamond drill programs on the property in 1984.
5. I have not, nor do I expect to receive any interest directly or indirectly in the property or in the securities of Carmac Resources Limited.

Dated at Calgary, Alberta, this 30th day of September A.D., 1984.



A.W. Dean, P.Eng.

REFERENCE LIST

Reference
No.

1. Dean, A.W.
1984: Report on McIntyre Birch Lake Property, Red Lake Mining Division, Ontario; for Carmac Resources Limited, April 30, 1984.
2. Thorpe, W.H.
1975: Field work on Birch Lake Claims, report and maps prepared for McIntyre Mines Limited.
3. Thurston, P.C.Jackson,M.C. and Pirie, I.
1981: Precambrian Geology of the Birch Lake Area, Kenora District (Patricia Portion); Ontario Geological Survey Preliminary Map P.2387, Geological Series, Scale 1:50,000. Geology 1977-78.
4. G.S.C.
1960 Birch Lake, Kenora District, Ontario; Ontario Department of Mines, Map 883G. Scale: one inch to one mile.
5. Adams, N.D.
1940 Report on McIntyre Birch Lake claims, Drilling Campaign, September 10 - November 1, 1940, report prepared for McIntyre Mines Limited.

McINTYRE BIRCH LAKE PROPERTY
DRILL HOLE SURVEY DATA

<u>Drill Hole No.</u>	<u>Angle At Collar Degrees</u>	<u>Latitude</u>	<u>Departure</u>	<u>Bearing Degrees</u>	<u>Depth Meters</u>	<u>Feet</u>
84-7	-50	3+00 South	L16+20W	S 37 W	77	253
84-8	-50	2+25 South	L15+20W	S 37 W	119	390
84-9	-50	2+25 South	L17+20W	S 37 W	116	380
84-10	-50	2+25 South	L18+20W	S 37 N	107	351
84-11	-50	3+00 South	L18+20W	S 37 W	77	253
84-12	-50	3+00 South	L17+20W	S 37 W	85	279
84-13	-50	1+55 South	L16+20W	S 37 W	155	508
84-14	-50	2+25 South	L13+20W	S 37 W	123	403
84-15	-50	1+00 South	L35+00W	S 37 W	305	1000
84-16	-50	2+05 South	L16+20W	N 37 E	<u>106</u>	<u>348</u>
Total Drilled meters/feet					<u>1,270</u>	<u>4,165</u>

MCINTYRE BIRCH LAKE PROPERTY

CORE SAMPLE AND ASSAY RESULTS

AUGUST 1984 DRILL PROGRAM

APPENDIX IV

<u>DRILL HOLE NO.</u>	<u>SAMPLE NO.</u>	<u>CORE INTERVAL (Meters)</u>	<u>SAMPLE WIDTH (Meters)</u>	<u>CORE INTERVAL (Feet)</u>	<u>SAMPLE WIDTH (Feet)</u>	<u>GOLD (Oz./Ton)</u>	<u>SILVER (Oz./Ton)</u>
84-7	08951	15.5 - 16.5	1.0	50.8 - 54.1	3.3	Nil	0.02
	08952	16.5 - 17.35	0.85	54.1 - 56.9	2.8	0.132	0.07
	08953	17.35- 18.35	1.0	56.9 - 60.2	3.3	Nil	0.03
	08954	19.9 - 20.9	1.0	65.3 - 68.6	3.3	Nil	0.02
	08955	20.9 - 21.3	0.4	68.6 - 69.9	1.3	0.108	0.02
	08956	21.3 - 22.3	1.0	69.9 - 73.1	3.3	Nil	0.02
84-9	08957	56.4 - 57.1	0.7	185.0 -187.3	2.3	Nil	0.02
	08958	57.1 - 57.7	0.6	187.3 -189.3	2.0	0.270	0.01
	08993	60.9 - 61.2	0.3	199.8 -200.8	1.0	0.088	0.03
	08994	68.8 - 69.1	0.3	225.7 -226.7	1.0	0.054	0.04
	08995	71.2 - 71.5	0.3	233.5 -234.5	1.0	Nil	0.01
	08959	74.1 - 74.6	0.5	243.0 -244.7	1.7	0.046	0.01
	08960	74.6 - 75.2	0.6	244.7 -246.7	2.0	Nil	0.02
	08961	77.35- 77.65	0.3	253.7 -254.7	1.0	0.052	0.03
	08992	88.4 - 88.7	0.3	290.0 -291.0	1.0	0.020	0.02
	08962	92.2 - 92.6	0.4	302.4 -303.7	1.3	Nil	0.02
	08963	92.6 - 92.9	0.3	303.7 -304.7	1.0	0.008	0.02
	08964	92.9 - 93.7	0.8	304.7 -307.3	2.6	Nil	0.02
	08965	99.1 - 99.4	0.3	325.0 -326.0	1.0	0.670	0.07
	08990	104.5 -104.9	0.4	342.8 -344.1	1.3	0.020	0.02
	08991	108.1 -109.1	1.0	354.6 -357.9	3.3	Nil	0.01

<u>DRILL HOLE NO.</u>	<u>SAMPLE NO.</u>	<u>CORE INTERVAL (Meters)</u>	<u>SAMPLE WIDTH (Meters)</u>	<u>CORE INTERVAL (Feet)</u>	<u>SAMPLE WIDTH (Feet)</u>	<u>GOLD Oz./Ton</u>	<u>SILVER Oz./Ton</u>
84-10	08966	46.8 - 47.3	0.5	153.5 - 155.1	1.6	0.116	0.03
	08967	47.3 - 47.85	0.55	155.1 - 156.9	1.8	0.048	0.03
	08968	54.5 - 55.1	0.6	178.8 - 180.7	1.9	0.094	0.09
	08969	56.8 - 57.7	0.9	186.3 - 189.3	3.0	0.064	0.03
	08970	57.7 - 58.3	0.6	189.3 - 191.2	1.9	0.010	0.03
	08971	76.6 - 77.9	1.3	251.2 - 255.5	4.3	0.012	0.03
	08972	77.9 - 79.2	1.3	255.5 - 259.8	4.3	0.112	0.05
	08973	79.2 - 79.8	0.6	259.8 - 261.7	1.9	0.024	0.03
	08974	79.8 - 80.6	0.8	261.7 - 264.4	2.7	Nil	0.02
	08975	80.6 - 81.1	0.5	264.4 - 266.0	1.6	0.062	0.04
	08976	81.1 - 81.4	0.3	266.0 - 267.0	1.0	Nil	0.02
	08977	81.4 - 81.7	0.3	267.0 - 268.0	1.0	0.030	0.04
84-11	08978	53.7 - 54.0	0.3	176.1 - 177.1	1.0	Nil	0.02
84-12	08996	26.6 - 27.0	0.4	87.2 - 88.6	1.4	Nil	0.02
	08997	45.3 - 45.9	0.6	148.6 - 150.5	1.9	Nil	0.01
	08979	83.3 - 84.1	0.8	273.2 - 275.8	2.6	Nil	0.02
	08980	84.1 - 85.0	0.9	275.8 - 278.8	3.0	0.006	0.03
84-13	08981	98.0 - 98.5	0.5	321.4 - 323.1	1.7	Nil	0.02
	08982	98.5 - 98.8	0.3	323.1 - 324.1	1.0	Nil	0.02
	08983	147.5 - 148.3	0.8	483.8 - 486.4	2.6	Nil	0.02
84-14	08984	23.0 - 23.3	0.3	75.4 - 76.4	1.0	Nil	0.05
	08985	46.6 - 46.9	0.3	152.8 - 153.8	1.0	0.006	0.06
	08986	46.9 - 47.3	0.4	153.8 - 155.1	1.3	Nil	0.02
	08987	47.3 - 47.6	0.3	155.1 - 156.1	1.0	0.064	0.01
	08988	56.5 - 56.8	0.3	185.3 - 186.3	1.0	Nil	0.02

<u>DRILL HOLE NO.</u>	<u>SAMPLE NO.</u>	<u>CORE INTERVAL</u> (Meters)	<u>SAMPLE WIDTH</u> (Meters)	<u>CORE INTERVAL</u> (Feet)	<u>SAMPLE WIDTH</u> (Feet)	<u>GOLD</u> Oz./Ton)	<u>SILVER</u> Oz./Ton
84-15	08998	116.2 - 116.7	0.5	381.1 - 382.8	1.7	Nil	0.02
	08999	130.8 - 131.2	0.4	429.0 - 430.3	1.3	Nil	0.01
	09000	131.2 - 131.7	0.5	430.3 - 432.0	1.7	0.052	0.02
	09001	131.7 - 132.0	0.3	432.0 - 433.0	1.0	Nil	0.01
	09002	151.6 - 151.9	0.3	497.2 - 498.2	1.0	Nil	0.01
	09003	157.6 - 157.9	0.3	516.9 - 517.9	1.0	Nil	0.02
	09005	170.2 - 170.5	0.3	558.3 - 559.2	1.0	Nil	0.02
	09004	222.5 - 222.8	0.3	729.8 - 730.8	1.0	Nil	0.06
84-16	09006	102.8 - 103.1	0.3	337.2 - 338.2	1.0	Nil	0.02

DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake HOLE NO. 84-7

SHEET NUMBER ONS SECTION FROM 0 TO 52.9 meters STARTED Aug 9, 1984
 LATITUDE Δ 3100 South DATUM _____ COMPLETED Aug 10, 1984
 DEPARTURE W 16+20 West BEARING S 37° W ULTIMATE DEPTH 77.0 meters
 ELEVATION _____ DIP -50° @ collar PROPOSED DEPTH _____

Meters DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD g	SLUDGE GOLD g
0 - 10.9	<u>Casing</u> : overburden				
10.9 - 24.0	<u>ANDESITE</u> : Green, chloritized with moderate to weak schistosity, fine line qtz/carb stringers to schistosity @ 45° to 50° to core. Occasional qtz/carb vein, Arseno & pyrite as follows: 16.50 - 17.35: 30% irregular qtz veins, chlorite with 3% euhedral arseno, 2% pyrite 17.35 - 18.35: Chlorite, 1% pyrite trace of arsenopyrite. 20.90 - 21.30: 50% qtz/carb vein, 5 to 8% arseno in chlorite, 1% pyrite				
24.0 - 32.0	<u>ANDESITE</u> : Grey Green, with weak schistosity, occasional qtz/carb stringer. Gneissic texture from 25.6 to 29.0 m @ 45° to core				
32.0 - 77.0	<u>BASALT</u> : Dark Green chloritized generally massive with occasional qtz/carb stringer and Iron formations noted as follows: 33.6 - 34.2: T.F., banded, 10% f.g. mag, sugary qtz < 45° to core. 35.90 - 35.94: banded, 15% f.g. mag, 20% cherty qtz, 65% chlorite. 41.5 - 41.8: " " " " " " 43.5 - 43.9: " , 20% f.g. mag, 80% sugary qtz. 49.2 - 49.6: as above 53.2 - 52.9: banded, 10% v.f.g. mag, 80% cherty qtz.				

DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake HOLE NO. 84-7

SHEET NUMBER Two SECTION FROM _____ TO 77.0 meters. STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH 77.0 meters
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
<u>Continuous</u>	<u>57.4 - 58.1: J.F., banded, 10%</u>	<u>f.g. mag, 30%</u>	<u>50gms</u>	<u>5</u>	<u>60% chlorite.</u>
	<u>62.2 - 62.5: folded banding, 15%</u>	<u>v.f.g mag,</u>	<u>85%</u>	<u>50gms</u>	<u>5</u>
	<u>63.1 - 63.7: " "</u>	<u>as above.</u>			
<u>END OF HOLE AT 77.0 meters.</u>					
<u>DIP TESTS.</u>					
<u>DIP TEST DEPTH</u>	<u>10.9 METERS</u>	<u>38 M.</u>	<u>77M</u>		
<u>ETCH ANGLE</u>	<u>54°</u>	<u>56°</u>	<u>51°</u>		
<u>CORRECTED ANGLE</u>	<u>46.5°</u>	<u>42.5°</u>	<u>43.5°</u>		

DRILLED BY

SIGNED Alan Denon

DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake HOLE NO. 24-8

SHEET NUMBER ONE SECTION FROM 0 TO 119 meters STARTED Aug 10 / 84
 LATITUDE Δ 2425 SOUTH DATUM _____ COMPLETED Aug 11 / 84
 DEPARTURE L 15+20 WEST BEARING S 37° WEST. ULTIMATE DEPTH 119 METERS
 ELEVATION _____ DIP -50° at collar PROPOSED DEPTH _____

DEPTH FEET METERS	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
0 - 4.8	<u>CASING: overburden</u>				
4.8 - 28.1	<u>ANDESITE: Green, chloritized, fine grained, weak schistosity to massive, occasional fine line stringer of qtz/carb with epidote & euhedral pyrite.</u>				
28.1 - 28.7	<u>DIABASE: Green, medium grained, massive, cut 11 to schistosity</u>				
28.7 - 31.0	<u>ANDESITE: Green, chloritized, fine grained, weak schistosity with occasional fine line stringer of qtz/carb.</u>				
31.0 - 50.0	<u>ANDESITE, Green, chloritized, f.g., generally massive with occasional qtz/carb stringer with epidote & blob of euhedral pyrite. - 25% pure over 4cm @ 36.7m. 44.9 - 45.0: white qtz vein</u>				
50.0 - 119	<u>BASALT: Dark green, chloritized, fine grained, generally massive with occasional qtz/carb stringer. Contains several sections of Iron Formations noted as follows.</u>				

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SIGNED Alan Evans

DIAMOND DRILL RECORD

PROPERTY McIntyre Birch Lake

HOLE NO. 248

SHEET NUMBER Two

SECTION FROM 50 TO 119 meters

STARTED _____

LATITUDE _____

DATUM _____

COMPLETED _____

DEPARTURE _____

BEARING _____

ULTIMATE DEPTH 119.0 meters

ELEVATION _____

DIP _____

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$			
<u>50-119.</u>	<u>Continued.</u>							
	<u>56.0 - 56.2: banded @ 30° to core, 20% f.g. mag, 20% sg. qtz, 60% chlorite.</u>							
	<u>63.4 - 64.4: as above.</u>							
	<u>66.8 - 67.2: 40% v.f.g. mag, cherty qtz.</u>							
	<u>72.6 - 73.0: banded, 15% f.g. mag, 30% sg. qtz, 55% chlorite.</u>							
	<u>75.8 - 76.0: 10% v.f.g. mag in cherty qtz.</u>							
	<u>85.2 - 85.7: 10% f.g. mag, 30% sg. qtz, 60% chlorite with 2% f.g. pyrite.</u>							
	<u>90.3 - 91.1: 10% v.f.g. mag in cherty qtz.</u>							
	<u>102.5 - 102.7: as above.</u>							

DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake HOLE NO. 84-9

SHEET NUMBER ONE SECTION FROM 0 TO 59.4 meters STARTED Aug 11/84
 LATITUDE Δ 2+25 SOUTH DATUM _____ COMPLETED 116 meters Aug 12/84
 DEPARTURE L 17+20 WEST BEARING S-37°W ULTIMATE DEPTH 116 meters.
 ELEVATION _____ DIP -50° at collar PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD g	SLUDGE GOLD g
0 - 4.2	<u>CASING: overburden</u>				
4.2 - 4.6	<u>Iron Formation: banded, 10% fine grained magnetite & porous qtz</u>				
4.6 - 39.5	<u>BASALT: Dark green, chloritized, v.f.g, generally massive with occasional qtz/carb stringer with epidote. 38.1-38.7; irregular qtz/carb veins.</u>				
39.5 - 43.5	<u>ANDESITE: Green, fine grained, chloritized, massive with mottled texture. occasional qtz/carb stringer.</u>				
43.5 - 47.0	<u>ANDESITE PORPHYRY: medium grained hornblende phenocrysts in aphanitic chloritized ground mass, massive; cut 11 to schistosity.</u>				
47.0 - 59.4	<u>ANDESITE: Green, chloritized, moderately schistose with frequent fine line qtz/carb stringers 11 to schistosity @ 30° to core. occasional mineralization as follows: 56.4-56.7: fine qtz stringers with 4% py, trace of arseno 57.1-57.7: 20cm qtz vein @ 45° to core, 1% arseno in chlorite.</u>				

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SIGNED Alv. Denton

DIAMOND DRILL RECORD

PROPERTY McIntyre Birch Lake HOLE NO. 84-9

SHEET NUMBER Two SECTION FROM 59.4 m TO 97.8 meters STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH 116.0 meters
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET Meters	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD g	SLUDGE GOLD g
59.4-61.2	<u>ANDSITZ</u> : Green, chloritized fine grained granitic texture, with 10% subhedral pyrite from 60.9 to 61.2 m.				
61.2-71.5	<u>ANDSITZ</u> : Green, chloritized, with moderate schistosity with fine line qtz/carb stringers with pyrite as follows: @ 68.9: 10cm qtz veins, 5% pyr. @ 71.2: 6cm qtz veins, 5% pyr.				
71.5-78.1	<u>BASALT</u> : Dark green, chloritized, massive to weakly schistose with occasional qtz/carb veins & sulphide mineralization. 74.1-74.6: 25cm qtz veins with 3% arseno, 2% pyr in chlorite. 75.1-75.2: 20% qtz, 2% arseno, 2% pyr in chlorite. 77.5-77.6: 30% qtz, 2% arseno, 1% pyr in chlorite.				
78.1-97.8	<u>BASALT</u> : Dark Green, chloritized weakly schistose with occasional fine stringers to schistosity @ 25° to core. Contains ^{sulphide mineralization} Iron Formation as follows: 78.1-80.5: banded, 10% f.c. mag, 40% grey qtz, 50% chlorite. 81.9-82.1: " , same. 88.0-89.0: same with 1/4" pyrite @ 88.4m. 89.9-91.2: 10% v.f. mag, 30% grey qtz, 60% chlorite, occasional pyr.				

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SIGNED [Signature]

DIAMOND DRILL RECORD

PROPERTY McIntyre Birch Lake

HOLE NO. 84-9

SHEET NUMBER THREE

SECTION FROM 97.8m TO 116.0 meters

STARTED _____

LATITUDE _____

DATUM _____

COMPLETED _____

DEPARTURE _____

BEARING _____

ULTIMATE DEPTH 116.0 meters.

ELEVATION _____

DIP _____

PROPOSED DEPTH _____

DEPTH FEET <i>meters</i>	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD g	SLUDGE GOLD g
	92.2 - 93.0 : banded, 5% mag, 50% agry qtz, 4% chlorite, 5% sulphides. from 92.6 to 92.9 10% arseno/5% pyr replacing magnetite.				
	93.5 - 93.7 : 4 cm qtz vein, 3% arseno, 1% pyr.				
	95.3 - 96.0 : banded, 30% v.f.g mag, 70% agry qtz				
97.8 - 99.1	<u>ANDESITE</u> : Green, chloritized, f.g, massive, sill cut @ 25° to core.				
99.1 - 116.	<u>BASALT</u> : Dark Green, chloritized, weakly schistose to massive. with occasional qtz/carb stringers. Contains Iron formation and sulphide mineralization as follows:				
	99.1 - 99.4: 4 cm qtz vein, with 3% arseno, 2% pyr in chlorite.				
	104.5 - 104.9: banded I.F., 10% f.g. mag, agry qtz, 3% pyr stringers				
	108.1 - 109.1: banded @ 25° to core, 15% mag, 5% pyr stringers				
	110.7 - 111.3: 10% f.g. mag, 40% agry qtz, 50% chlorite				
	111.8 - 112.5: 20% f.g. mag, 40% agry qtz, 40% chlorite.				
	<u>END OF HOLE AT 116 METERS.</u>				
DEPTH OF TEST	4.2 m	61 m	116 m.		
ETCH ANGLES	58°	54°	48°		
CORRECTED ANGLES	50.5°	46.5°	40°		

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SIGNED Al. J. [Signature]

DIAMOND DRILL RECORD

PROPERTY McIntyre Birch Lake HOLE NO. 84-10

SHEET NUMBER CWS. SECTION FROM 0 TO 39.7 meters STARTED Aug 12/84
 LATITUDE Δ 2+25 SOUTH DATUM _____ COMPLETED Aug 13/84
 DEPARTURE W 18+20 WEST BEARING S 37° WEST. ULTIMATE DEPTH 107 meters.
 ELEVATION _____ DIP -50° @ collar PROPOSED DEPTH _____

DEPTH FEET METERS	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
0 - 2.4	<u>CASING: overburden.</u>				
2.4 - 30.1	<u>BASALT: Dark Green, chloritized, generally massive with occasional qtz/carb veins as follows: 4.8-4.9: cut @ 45° to core. 18.70-18.81: none 19.40-19.55: " 22.70 - 22.80: "</u>				
30.1 - 31.2	<u>ANDESITE PORPHYRY: Grey Green, med. grained hornblende phenos. in chloritized aphanitic ground mass, massive.</u>				
31.2 - 33.0	<u>BASALT: Dark Green, chloritized, generally massive.</u>				
33.0 - 33.9	<u>ANDESITE PORPHYRY: AS ABOVE.</u>				
33.9 - 39.5	<u>BASALT: Dark Green, chloritized, generally massive</u>				
39.5 - 39.7	<u>IRON FORMATION: Cherty quartz with 10% v.f.g. magnetite</u>				

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SIGNED Alv. Dwan

DIAMOND DRILL RECORD

PROPERTY McIntyre Birch Lake HOLE NO. 84-10

SHEET NUMBER Two SECTION FROM 39.7 TO 81.8 meters STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH 107.0 meters
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET Meters	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
39.7 - 62.0	<u>BASALT: Dark Green, chloritized, moderate schistosity with fine line qtz/carb shivers and qtz/cab veins with mineralization as follows:</u>				
	46.8 - 47.3: 20% qtz vein, cut \angle 80° to core, chlorite with 1% arseno, 1% pyr.				
	47.3 - 47.85: 13cm qtz vein, chlorite with 2% arseno, 1% pyr.				
	54.5 - 55.1: 20cm qtz vein, 1% arseno, 1% pyr, trace of cpy.				
	56.8 - 57.7: 40% qtz veins, 4% arseno, 2% pyr in chlorite.				
	57.7 - 58.3: 30cm qtz vein with tourmaline, 2% arseno in chlorite.				
62.0 - 65.2	<u>BASALT: Dark Green, chloritized, massive.</u>				
65.2 - 66.0	<u>ANDESITE PORPHYRY: Grey green, med grained hornblende in aphanitic ground mass, massive.</u>				
66.0 - 81.8	<u>BASALT: Dark green, chloritized, massive to weakly schistose with qtz/carb veins and mineralization as follows:</u>				
	76.6 - 77.9: three 2cm qtz veins, open at V.G., 1 to 2% arseno, 1% pyr.				
	77.9 - 79.2: 50% qtz veins with 4% arseno in chlorite.				
	79.2 - 79.8: 5cm qtz vein, 1% arseno & 1% pyr in chlorite.				
	80.6 - 81.1: two 7cm qtz veins 4% arseno, 4% pyr in chlorite.				
	81.4 - 81.7: 10cm qtz vein, 2% arseno in chlorite.				

N.M.P. TORONTO-STOCK FORM NO. 801 REV. 12/51

DRILLED BY _____

SIGNED _____

Al. D. ...

DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake

HOLE NO. 84-10

SHEET NUMBER THREE

SECTION FROM 81.8m TO 93.5 meters . STARTED _____

LATITUDE _____

DATUM _____

COMPLETED _____

DEPARTURE _____

BEARING _____

ULTIMATE DEPTH 107.0 meters

ELEVATION _____

DIP _____

PROPOSED DEPTH _____

DEPTH <small>FEET METERS</small>	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
81.8-93.5	<u>BASALT: Dk. green, chloritized, moderately schistose with fine fine qtz/carb stringers to schistosity.</u>				
93.5-107	<u>BASALT: Dk green, chloritized, generally massive. with a band of iron formation, cherty, from 103.2m to 103.5m.</u>				
<u>END OF HOLE AT 107 meters</u>					
<u>DIP TESTS.</u>					
DEPTH OF TEST.	2.4 m	61m	107m		
ETCH ANGLES	56°	54°	49°		
CORRECTED ANGLE	48°	47°	41.5°		

DRILLED BY _____

SIGNED Alan Dan

DIAMOND DRILL RECORD

PROPERTY McIntyre Birch Lake

HOLE NO. 84-11

SHEET NUMBER ONE

SECTION FROM 0 TO 77.0 meters

STARTED Aug 13/84

LATITUDE Δ 3+00 SOUTH

DATUM _____

COMPLETED Aug 13/84

DEPARTURE L 18+20 WEST.

BEARING S 37° WEST.

ULTIMATE DEPTH 77 meters.

ELEVATION _____

DIP -50° @ collar

PROPOSED DEPTH _____

DEPTH FEET Meters.	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD g	SLUDGE GOLD g
0-3.0	CASING: overburden				
3.0-9.0	BASALT: Dark green, chloritized, weak schistosity with occasional qtz/carb stringer.				
9.0-11.0	BASALT: Dark green, chloritized with moderate schistosity @ 43° to core				
11.0-16.0	BASALT: Highly sheared, weathered with Iron stain, 10% core loss.				
16.0-21.5	BASALT: Dark green, chloritized with moderate schistosity				
21.5-62.0	BASALT: Dark green, chloritized, generally massive with occasional qtz/carb ^{stringer} with epidote. 53.9-54.0: white qtz vein, cut < 30° to core.				
62.0-66.5	BASALT: Dark green, chloritized, moderately schistose with fine-line stringers to schistosity				
66.5-77.0	BASALT: Dark green, chloritized, generally massive. 75.2-75.9: Banded Iron formation, 15% v.f.d, mag, 65% Ag, qtz, 20% chlorite				

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SIGNED A.W. Dwan

DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake HOLE NO. 84-11

SHEET NUMBER Two SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH 77.0 meters.
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
	<u>END OF HOLE AT 77.0 meters.</u>				
	<u>DIP TEST</u>				
DEPTH OF TEST	3m 33m 77m.				
ETCH ANGLE	55° 54° 52°				
CORRECTED ANGLE	47.5° 46.5° 44°				

N.M.P., TORONTO-STOCK FORM NO. 801 REV. 12/51

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DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake HOLE NO. 84-12

SHEET NUMBER ONS SECTION FROM 0 TO 55.5 meters STARTED Aug 14/84
 LATITUDE Δ 3400 SOUTH DATUM _____ COMPLETED Aug 15/84
 DEPARTURE L 17+20 WEST BEARING S 37° W ULTIMATE DEPTH 85 meters
 ELEVATION _____ DIP -50° at collar PROPOSED DEPTH _____

DEPTH FEET <small>meters</small>	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
0 - 12.8	<u>CASING: overburden</u>				
12.8 - 18.5	<u>ANDESITE: Green, chloritized, moderate schistosity with fine line shinglers 11 to ^{schistosity} core at <38° to core. 13.6 to 14.6m: shear.</u>				
18.5 - 30.0	<u>ANDESITE: Green, chloritized, weakly schistose with occasional qtz/carb shinglers. 26.6-27.0: 10cm qtz/carb vein 1% pyx.</u>				
30.0 - 37.3	<u>ANDESITE: Green-Green, fine grained, massive with a mottled texture.</u>				
37.3 - 51.0	<u>BASALT: Dark green, chloritized, generally massive with occasional qtz/carb shingler and I. formation as follows: 45.3 - 45.9: banded, 10% f.g. mag, 15% chlorite, 75% cherty qtz with 2% pyx. 47.0 - 48.5: banded @ 30° to core, 10% v.f.g. mag, 35% cherty qtz, 55% chlorite. 49.3 - 50.0: 5% f.g. mag & v.f.g. cherty qtz.</u>				
51.0 - 55.5	<u>ANDESITE PORPHYRY: Green green, med grained horn blende phenos. in chloritized ground mass, massive.</u>				

N.M.P., TORONTO-STOCK FORM NO. 801 REV. 12/81

DRILLED BY MIDWEST DRILLING

SIGNED Alw. Dan

DIAMOND DRILL RECORD

PROPERTY McIntyre Birch Lake HOLE NO. 84-12

SHEET NUMBER Two SECTION FROM 55.5m TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH 85.0 meters
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET <i>meters</i>	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD g	SLUDGE GOLD g
55.5 - 73.2	<u>BASALT</u> : Dark green, chloritized, weakly schistose with fine line qtz/carb shinglers and banded Iron formation as follows:				
	55.5 - 55.8: 20% f.g. mag., 80% v.f.g. cherty qtz.				
	60.4 - 61.1: 15% f.g. mag., 10% chlorite, 75% v.f.g. cherty qtz.				
	65.5 - 65.9: 10% f.g. mag., 30% chlorite, 60% v.f.g. cherty qtz.				
	69.4 - 70.4: 30% f.g. mag., 70% f.g. argon qtz.				
73.2 - 76.0	<u>BASALT</u> : Dark green, chloritized, massive with f.g. gneissic texture.				
76.0 - 85.0	<u>BASALT</u> : Dark green, chloritized, weak schistosity with occasional qtz/carb veins with sulphide mineralization as follows:				
	83.3 - 83.7: 5cm qtz/carb vein, 2 to 4% pyrite.				
	83.7 - 83.95: qtz/chert vein with 4% pyrite.				
	83.95 - 85.0: two 5cm qtz veins, 4% pyrite & trace of arsenic in chlorite.				
<u>END OF HOLE AT 85.0 meters.</u>					
<u>DIP TESTS.</u>					
DEPTH OF TEST.	12.8 m	38m	85m		
ETCH ANGLE	51°	48°	50°		
CORRECTED ANGLE	43.5°	40°	42.5°		

N.M.P., TORONTO-STOCK FORM NO. 801 REV. 12/51

DRILLED BY _____

SIGNED Alv. Dwan.

DIAMOND DRILL RECORD

PROPERTY McIntyre Birch Lake HOLE NO. 84-13

SHEET NUMBER ONE SECTION FROM 0 TO 141.5 m STARTED August 17/84
 LATITUDE 1+55 SOUTH DATUM _____ COMPLETED August 19/84.
 DEPARTURE L 16+20 WEST BEARING S 37° West. ULTIMATE DEPTH 155 meters
 ELEVATION _____ DIP -50° at collar. PROPOSED DEPTH _____

DEPTH FEET Meters	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD %	SLUDGE GOLD %
0 - 7.9	<u>Casing: over burden</u>				
7.9 - 27.5	<u>BASALT: DK green, chloritized, weakly schistose, occasional fine line qtz/carb stringer</u> to schistosity at 45° to core.				
27.5 - 58.8	<u>BASALT: DK green, chloritized, generally massive with occasional qtz/carb stringer with epidote.</u>				
58.8 - 63.5	<u>ANDESITE: Green green, moderate schistosity with fine line qtz/carb stringers</u> to schistosity at 30° to core.				
63.5 - 141.5	<u>BASALT: DK green, chloritized, weak schistosity, occasional qtz/carb stringer and several banded Iron Formation sections as follows:</u>				
	85.7 - 86.1: 5% f.g. mag, 25% cherty qtz, 70% chlorite.				
	87.0 - 87.6: 15% f.g. mag, 35% cherty qtz, 50% chlorite.				
	96.1 - 96.6: 10% f.g. mag, 90% sugary qtz, 1% pyrite				
	98.0 - 98.5: 20% f.g. mag, 80% sugary qtz, 1% pyr.				
	98.5 - 98.8: 40% irregular qtz vein, 1% pyrite.				
	101.4 - 101.6: 15% f.g. mag, 85% sugary qtz.				
	108.7 - 109.0: 15% f.g. mag, 85% cherty qtz				

DRILLED BY MIDWEST DRILLING

SIGNED [Signature]

DIAMOND DRILL RECORD

PROPERTY McIntyre Birch Lake HOLE NO. 84-13

SHEET NUMBER Two SECTION FROM 63.5 m TO 155 meters STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH 155.0 METERS
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD g	SLUDGE GOLD g
<u>63.5-141.5 continued.</u>					
	<u>120.6-121.0: 10% f.g. mag, 20% chlorite, 80% cherty qtz</u>				<u>230° to core</u>
	<u>127.2-127.5: 15% f.g. mag, 85% sugary quartz.</u>				"
	<u>127.8-128.1: 30% v.f.g. mag, 70% cherty qtz</u>				"
	<u>130.9-131.1: 20% v.f.g. mag, 80% cherty qtz</u>				"
	<u>133.6-134.9: 25% v.f.g. mag, 75% cherty qtz.</u>				
	<u>135.9-136.2: 15% f.g. mag, 85% sugary qtz</u>				
	<u>137.6-137.9: 20% f.g. mag, 80% sugary qtz</u>				
	<u>138.3-138.6: 20% f.g. mag, 80% sugary qtz.</u>				
<u>141.5-147.0</u>	<u>ANDESITE: Grey green, chloritized, generally massive with mottled texture.</u>				
<u>147.0-155.0</u>	<u>ANDESITE: Green, chloritized, moderate schistosity, with fine line qtz/carb stringers to schistosity @ 25° to core.</u>				
	<u>147.5-148.3: 30% irregular qtz, 1% pyrite.</u>				
	<u>END OF HOLE @ 155.0 meters.</u>				
<u>DEPTH OF TEST</u>	<u>7.9 m.</u>	<u>70 m</u>	<u>155 m</u>		
<u>ETCH ANGLE</u>	<u>54°</u>	<u>48.5°</u>	<u>42°</u>		
<u>CORRECTED ANGLE</u>	<u>47°</u>	<u>41°</u>	<u>35°</u>		

N.M.P., TORONTO-STOCK FORM NO. 501 REV. 12/51

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DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake

HOLE NO. 84-14

SHEET NUMBER ONE

SECTION FROM 0 TO 75.0

STARTED Aug 18/84

LATITUDE Δ 2+25 SOUTH

DATUM _____

COMPLETED Aug 20/84

DEPARTURE N 13+20 WEST

BEARING S 37° West

ULTIMATE DEPTH 123.0 meters

ELEVATION _____

DIP -50° at collar

PROPOSED DEPTH _____

DEPTH FEET <i>Meters</i>	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
0 - 4.2	<u>Casing: overburden</u>				
4.2 - 11.0	<u>ANDSITE: Green, chloritized, moderate schistosity with fine line stringers to schistosity @ 45° to core.</u>				
11.0 - 29.0	<u>BASALT: Dark green, chloritized, generally massive with occasional qtz/carb stringer and I.F. as follows: 23.0 - 23.3: banded, 10% f.g. mag, 40% sugary qtz, 45% chlorite, 5% pyrite stringer.</u>				
29.0 - 75.0	<u>BASALT: Dark green, chloritized, usually schistose with fine line qtz/carb stringers to schistosity, contains two small qtz veins with arsenopyrite mineralization and several sections of Iron formation as follows:</u>				
	<u>46.6 - 46.9: 7cm qtz vein, 2% arseno in chlorite, cut @ 45° to core</u>				
	<u>47.3 - 47.6: 7cm qtz vein, 2% arseno & 2% pyrite in chlorite.</u>				
	<u>29.3 - 29.8: banded I.F., 15% f.g. mag, 40% chlorite, 45% f.g. sugary qtz</u>				
	<u>31.4 - 31.7: 25% f.g. mag, 75% sugary qtz</u>				
	<u>37.7 - 38.1: 30% f.g. mag, 70% cherty qtz</u>				
	<u>43.7 - 44.0: v.f.g. cherty qtz.</u>				
	<u>56.0 - 58.0: 35% f.g. mag, 40% sugary qtz, 25% chlorite, 1 to 2% pyrite.</u>				

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SIGNED Alvin Dean

DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake HOLE NO. 84-14

SHEET NUMBER Two SECTION FROM 29.0m TO 123.0 meters STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH 123.0 meters.
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET Meters	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD g	SLUDGE GOLD g			
29.0 - 75.0	continued.							
	61.6-61.8: brecciated I.f., 20% v.f.q. mag, 20% chlorite, 60% cherty qtz							
	66.5-66.7: v.f.q. cherty qtz							
	72.3-72.9: Irregular banding, 30% f.q. mag, 70% sugary qtz.							
75.0 - 92.0	<u>BASALT</u> : Dark green, chloritized, generally massive with occasional qtz/carb stringer.							
92.0 - 101.0	<u>BASALT</u> : Dark green, chloritized, weak schistosity, occasional qtz/carb stringer generally to schistosity @ 35° L to core.							
101.0 - 116.0	<u>BASALT</u> : Dark green, chloritized, generally massive with occasional qtz/carb stringer with epidote.							
116.0 - 123.0	<u>ANDESITE</u> : Grey green, chloritized, massive							
	<u>END OF HOLE @ 123.0 meters.</u>							
TEST DEPTH	42m	62m	123m					
STCH ANGLE	53°	50°	44°					
CORRECTED ANGLE	45°	42.5°	36.5°					

N.M.P., TORONTO-STOCK FORM NO. 801 REV. 12/81

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DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake HOLE NO. 84-15

SHEET NUMBER ONE SECTION FROM 0 TO 122.5 meters STARTED Aug 21/84
 LATITUDE Δ 1400 SOUTH DATUM _____ COMPLETED Aug 23/84
 DEPARTURE W 35+00 W BEARING S 37° WEST ULTIMATE DEPTH 305 meters.
 ELEVATION _____ DIP -50° @ collar PROPOSED DEPTH _____

DEPTH <small>FEET</small> meters	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
0 - 7.3	<u>CASING: overburden</u>				
7.3 - 40.0	<u>ANDESITE: Grey green, chloritized, moderate schistosity with fine line qtz/carb stringers to schistosity @ 35° < to core, occasional qtz/carb vein less than 10 cm wide</u> 17.30 - 17.37: white qtz vein, cut < 40° to core.				
40.0 - 59.0	<u>ANDESITE: Grey green, chloritized, weak schistosity, occasional qtz/carb stringer.</u>				
59.0 - 110.1	<u>BASALT: Dark green, chloritized, generally massive with occasional qtz/carb stringer & epidote.</u>				
110.1 - 112.6	<u>FELDSPAR Diorite Porphyry: Grey green, medium grained feldspar phenos in fine grained matrix, massive, cut 20° < to core to local schistosity.</u>				
112.6 - 122.5	<u>BASALT: Dark green, chloritized, generally massive with occasional qtz/carb stringer and blebs of epidote.</u> 116.2 - 116.7: fine line qtz/carb stringers with 5% pyrite in chlorite.				

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DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake HOLE NO. 84-15

SHEET NUMBER Two SECTION FROM 122.5m TO 255.0 meters STARTED _____

LATITUDE _____ DATUM _____ COMPLETED _____

DEPARTURE _____ BEARING _____ ULTIMATE DEPTH 305.0 METERS.

ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET Meters	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD %	SLUDGE GOLD %
122.5-130.5	<u>BASALT</u> : Dk green, chloritized, weakly schistose with occasional qtz/carb stringer.				
130.5-146.0	<u>BASALT</u> : Dk green, chloritized, moderately schistose with fine line qtz/carb stringers to schistosity @ 20° K to core. Contains sulphide mineralization as follows: 130.8-131.2: 4% pyrite in fine line stringers. 131.2-131.7: 10% irregular qtz stringers, 2% arseno, 3% pyr 131.7-132.0: 5% irreg. qtz stringers, 1% arseno, 2% pyr				
146.0-169.0	<u>BASALT</u> : Dk green, chloritized, weak schistosity, occasional qtz/carb stringer; and pyrite in stringers as follows: 156.7-156.8: 10% pyrite in stringers. 156.7-156.8: 3cm of qtz, 5% pyrite in stringers.				
169.0-249.5	<u>ANDESITE</u> : Green, chloritized, generally massive with occasional qtz/carb vein and bleb of epidote. 222.5-222.8: 16cm qtz white qtz vein, 1% pyr @ cut at 20° K to core.				
249.5-255.0	<u>ANDESITE PORPHYRY</u> : Green green, fine grained hornblende phenocr in Aphanitic ground mass, massive.				

DIAMOND DRILL RECORD

PROPERTY McIntyre's Birch Lake HOLE NO. 24-15

SHEET NUMBER THREE SECTION FROM 255.0 TO 305.0 STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH 305.0 meters.
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD \$	SLUDGE GOLD \$
255.0 - 269.0	<u>ANDESITE</u> : Green, chloritized, generally massive with occasional qtz/carb stringer.				
269.0 - 279.5	<u>ANDESITE</u> : Green, chloritized, weak schistosity, occasional fine line qtz/carb stringer to schistosity @ 25° to core.				
279.5 - 295.4	<u>FELDSPAR DIORITE PORPHYRY</u> : fine to medium grained feldspar phenocrysts in v.f.g. matrix, massive.				
295.4 - 305.0	<u>BASALT</u> : Dark green, chloritized, generally massive				
<u>END OF HOLE at 305.0 meters.</u>					
<u>ACID DIP TESTS.</u>					
DEPTH OF TEST	7.3 m	100 m	200 m	305 m	
ETCH ANGLE	54°	50°	48°	44°	
CORRECTED ANGLE	47°	42.5°	40.5°	36.5°	

DRILLED BY

SIGNED Alv. Dean

DIAMOND DRILL RECORD

PROPERTY McIntyre Birch Lake HOLE NO. 84-16

SHEET NUMBER ONE SECTION FROM 0 TO 106 meters STARTED Aug 24/84
 LATITUDE Δ 2+05 SOUTH DATUM _____ COMPLETED Aug 25/84
 DEPARTURE L 16+20 West. BEARING N 37° EAST. ULTIMATE DEPTH 106 meters.
 ELEVATION _____ DIP -50° at collar PROPOSED DEPTH _____

DEPTH FEET <small>meters</small>	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD g	SLUDGE GOLD g
0-6.7	<u>CASING: overburden</u>				
6.7-18.0	<u>BASALT: Dark green, chloritized, generally massive with occasional qtz/carb stringer</u>				
18.0-59.0	<u>BASALT: Dark green, chloritized, weak schistosity, fine line qtz/carb stringers to schistosity at 50° to 60° to core. occasional 1 to 2 cm qtz/carb stringer, trace of pyrite.</u>				
59.0-106.0	<u>BASALT: Dark green, chloritized, generally massive with occasional qtz/carb stringer @ 50° to core. 102.9-103.0: 3% euhedral pyrite in chlorite.</u>				
<u>END OF HOLE at 106.0 meters.</u>					
<u>ACID DIP TESTS.</u>					
TEST DEPTH	6.7m	53m	106m		
ETCH ANGLE	55°	50°	55°		
CORRECTED ANGLE	47.5°	42.5°	47.5°		

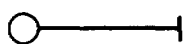
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SIGNED A.W. Dwan.

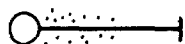
MCINTYRE BIRCH LAKE PROPERTY

CROSS - SECTIONS

LEGEND:



DIAMOND DRILL HOLE



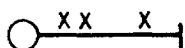
OVERBURDEN



MINERALIZATION: QTZ/CARB VEIN, PYRITE & ARSENO PYRITE

.098/6.2'

OZ. GOLD PER TON / SAMPLE WIDTH IN FEET



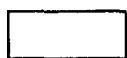
IRON FORMATION (1.0' to 3.0' WIDE)



METAVOLANICS - MAFIC & INTERMEDIATE



ANDESITE PORPHYRY

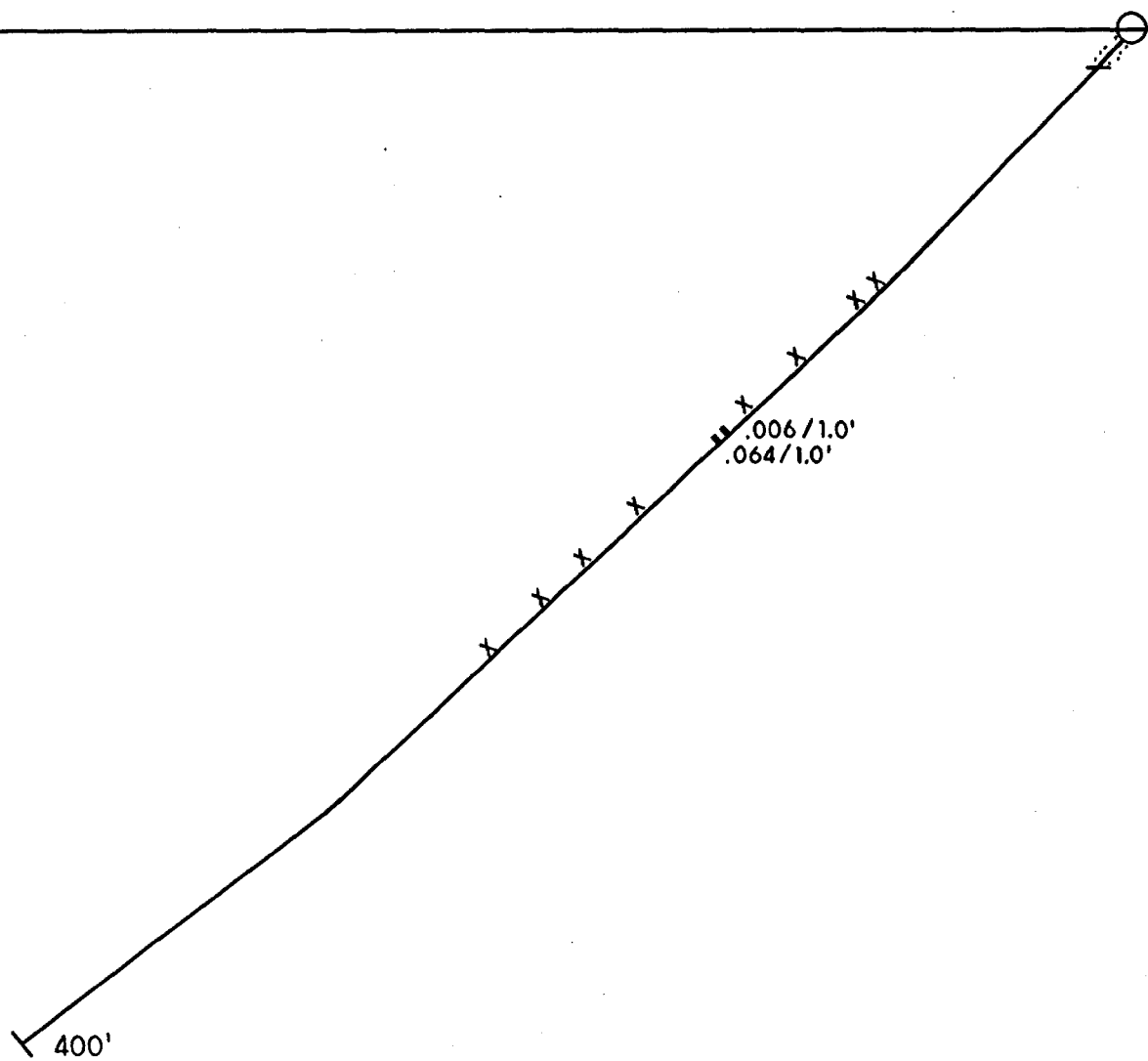


FELDSPAR DIORITE PORPHYRY

S 37° W

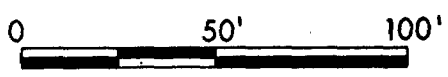
3+00 S

84-14



CARMAC RESOURCES LIMITED
MCINTYRE BIRCH LAKE PROPERTY
SECTION 13+20 WEST

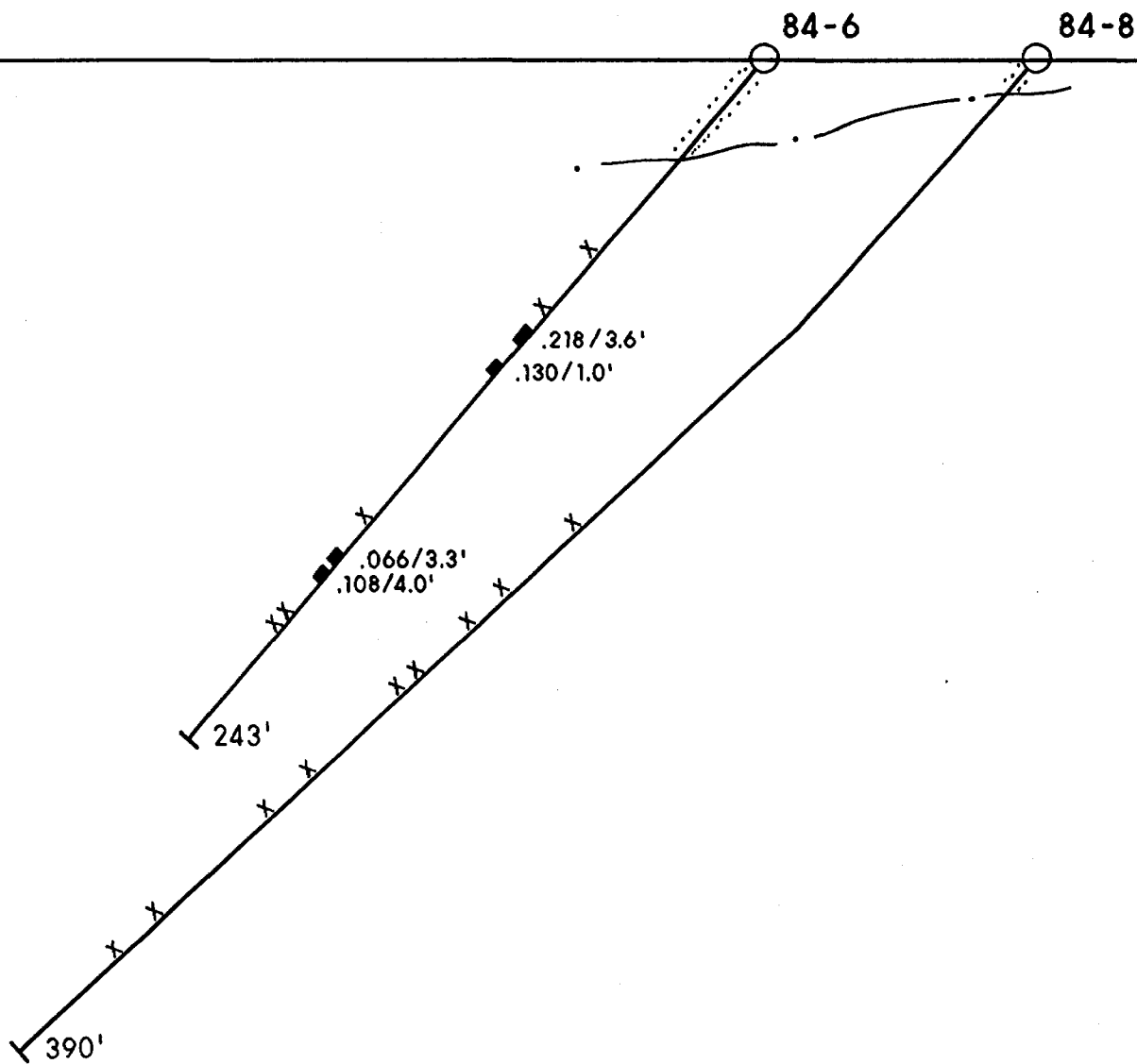
FIG. 6A



BY: A.W. DEAN	SCALE: 1" = 50 FT.
DATE: SEPT. 1984	N.T.S. MAP NO.

S 37° W

3+00 S

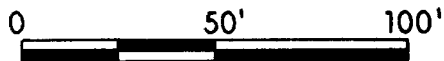


CARMAC RESOURCES LIMITED

MCINTYRE BIRCH LAKE PROPERTY

SECTION 15+20 WEST

FIG. 6B



BY: A.W. DEAN

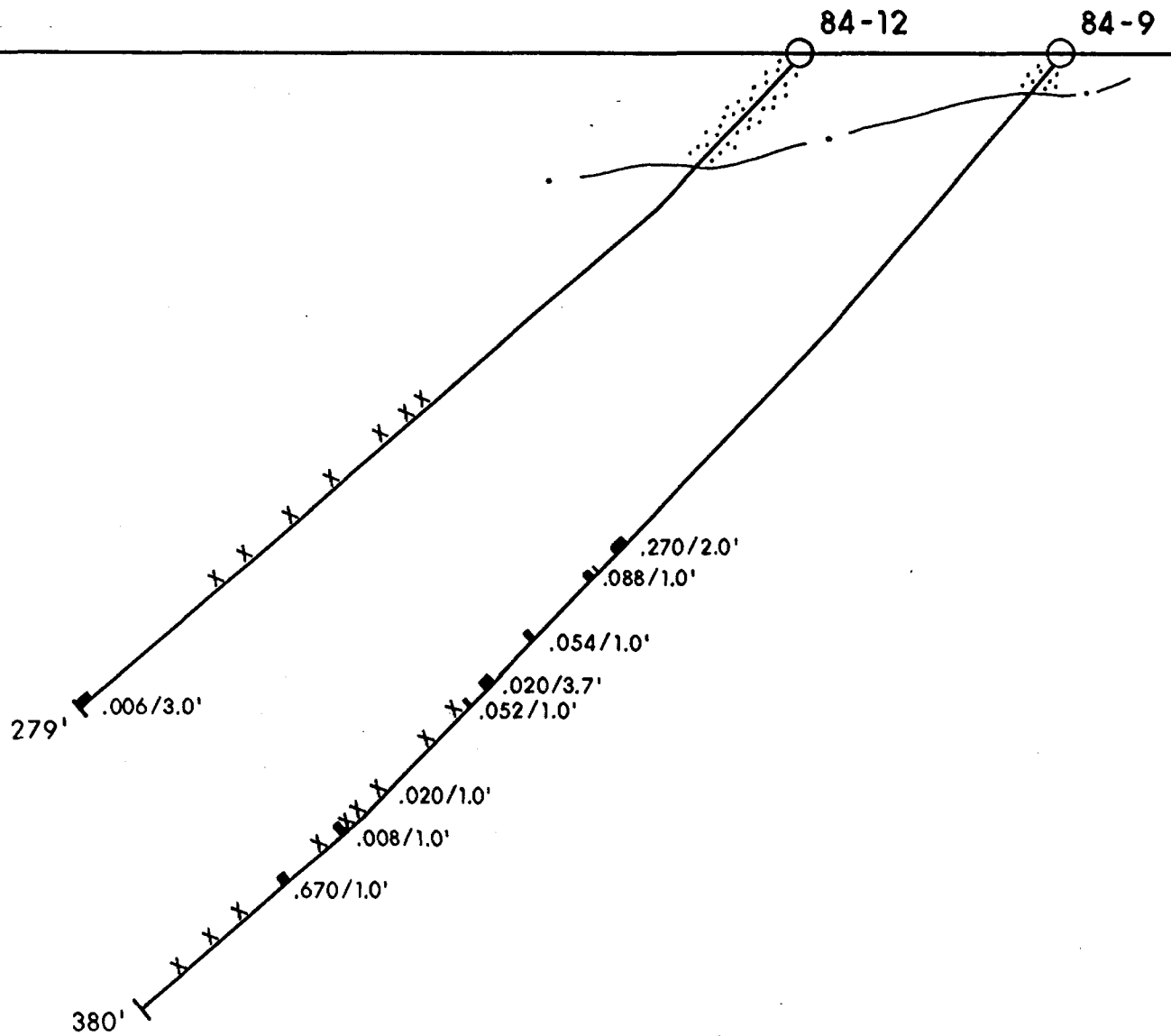
SCALE: 1" = 50 FT.

DATE: SEPT. 1984

N.T.S. MAP NO.

S 37° W

3+00 S



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MCINTYRE BIRCH LAKE PROPERTY

SECTION 17 + 20 WEST

FIG. 6D



BY: A.W. DEAN

SCALE: 1" = 50 FT.

DATE: SEPT. 1984

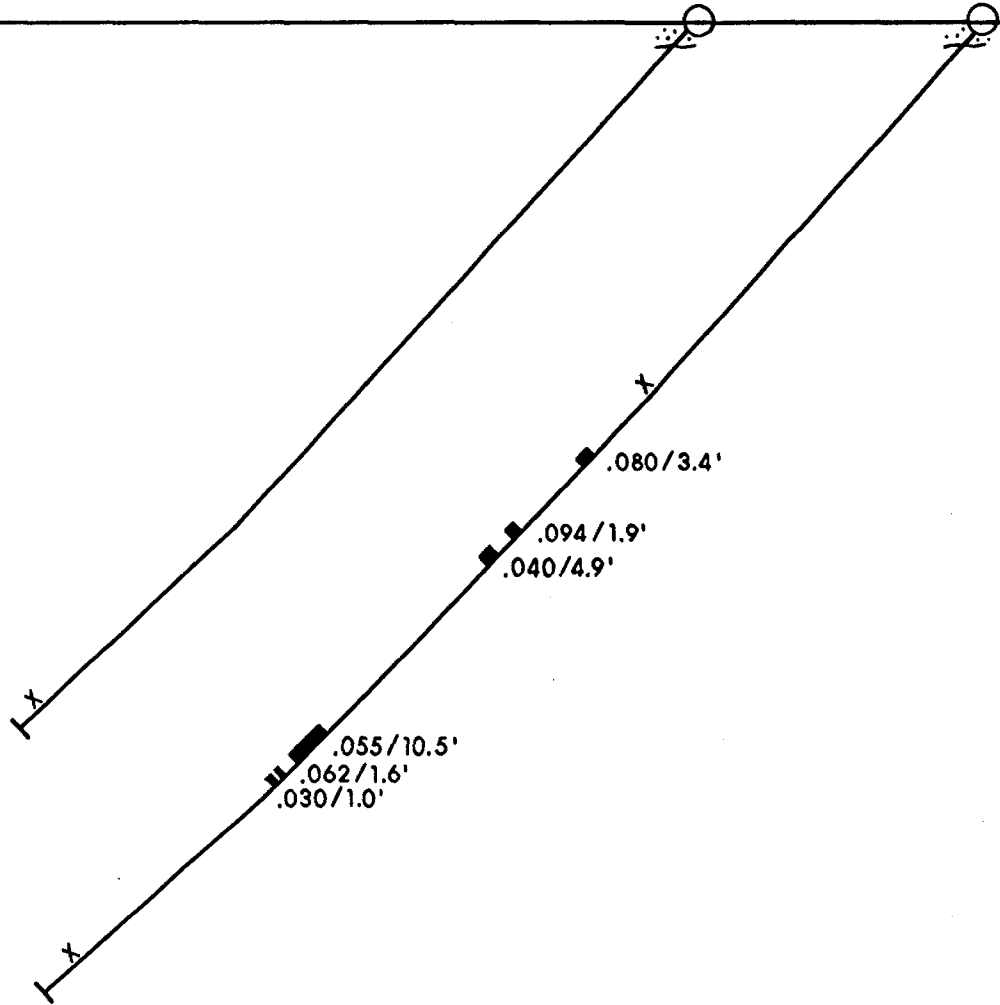
N.T.S. MAP NO.

S 37° W

3 + 00 S

84-11

84-10



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MCINTYRE BIRCH LAKE PROPERTY

SECTION 18 + 20 WEST

FIG. 6E



BY: A.W. DEAN

SCALE: 1" = 50 FT.

DATE: SEPT. 1984

N.T.S. MAP NO.

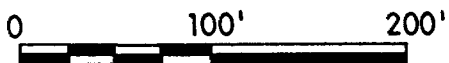
3 + 00 S

S 37° W

84-15

.019 / 3.7'

1000'



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MCINTYRE BIRCH LAKE PROPERTY

SECTION 35 + 00 WEST

FIG. 6F

BY: A.W. DEAN

SCALE: 1" = 100 FT.

DATE: SEPT. 1984

N.T.S. MAP NO.

S 37° W

3 + 00 S

BASE LINE

84-7

84-5

84-16

84-13

84-2

.132 / 2.8'
.108 / 1.3

.098 / 6.2'

1.078 / 4.1'
.710 / 15.8'
.204 / 4.9'

348'

400'

253'

331'

508'

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MCINTYRE BIRCH LAKE PROPERTY

SECTION 16 + 20 WEST

FIG. 6C

BY: A.W. DEAN

SCALE: 1" = 50 FT.

DATE: SEPT. 1984

N.T.S. MAP NO.

