42A05SE0147 2.5810 DENTON

010

GEOMAGNETIC and GEOLOGICAL SURVEYS

on the

DENTON #4-83 GROUP

of

Hollinger Argus Limited
(Brown-McDade Option)

Denton Township
District of Cochrane
Ontario

RECEIVED
SEP 1 8 1983
MINING LANDS SECTION

September 8, 1983

J. E. Mountjoy

42A05SE0147 2.5810 DENTON

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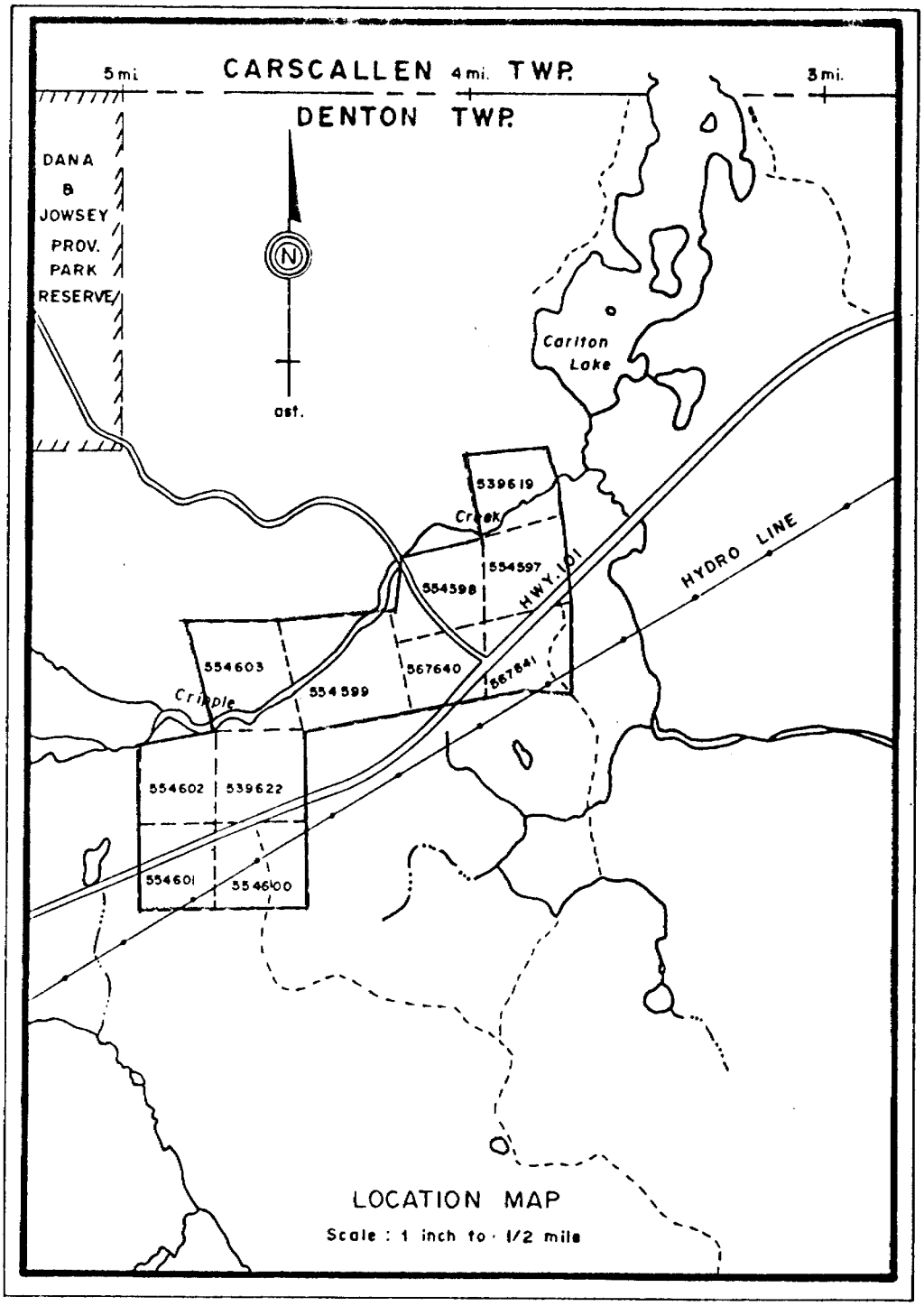
C O N T E N T S

MAPS



PROPERTY LOCATION

Denton #4-83

INTRODUCTION

During the period from May 12, 1983 to July 8, 1983, geological mapping and a geomagnetic survey were carried out by Hollinger personnel over a group of 10 claims in Denton Township, District of Cochrane. Mapping was completed by the author with the able assistance of R.W. King. The geomagnetic survey was carried out by G. Tremblay.

PROPERTY LOCATION and ACCESS

The Denton #4-83 group consists of 11 contiguous claims recently optioned from Brown-McDade Mines Limited. Of the eleven claims optioned, 10 are unpatented while one has a full complement of 200 days of assessment work credits and as a result has been brought to lease. The leased claim (mineral rights only) is P.554599 and the unpatented claims are as follows: P.539619, P.539622, P.554597, P.554598, P.554600, P.554601, P.554602, P.554603, P.567640 and P.567641.

The claims are located in the northwest quarter of Denton Township, in part straddling highway 101, roughly 20 miles southwest of downtown Timmins, Ontario.

A series of logging roads accessible from Highway 101 as well as an all-weather gravel road provide excellent access within the claim group.

PREVIOUS WORK

The oldest reported work on the ground presently covered by the Denton #4-83 claim group was carried out by Wakemac Denton Gold Mines Ltd. During 1945, Wakemac completed 12 diamond drill holes, one of which (#12) was drilled on the claims covered in

this report. Hole #12 was collared just north of highway 101 near XL 104E (see accompanying map back pocket). This hole was drilled at a dip of -50° on a bearing of 145° for a total length of 479'. The hole encountered 12' of overburden, 219' of rhyolite, a 6' andesite dyke and then a further 203' of rhyolite. No significant assays were encountered; however, a ½-inch quartz vein at 301' was said to have contained visible gold. Subsequent to this drill program, the Wakemac claims were held under patent until the early 1960s.

Between October 17, 1979 and May 16, 1980, the 10 claims covered by this report were staked and subsequently transferred to Brown-McDade Mines Ltd.(1) In 1980, geomagnetic and electromagnetic (V.L.F.) surveys were carried out by J-Dex Mining and Exploration Ltd. on behalf of Brown-McDade Mines Ltd. The surveys were carried out across the eleven claims which now make up the Denton #4-83 group. The magnetic survey was carried out along cut lines using a Scintrex MF-2 magnetometer (fluxgate) while the electromagnetic survey was carried out with a Phoenix VLF II.

Brown-McDade Mines Ltd. have also been credited with assessment work credits totalling 189 days for power stripping and plugger work performed on claims P.554599 and P.567640. Lastly, J-Dex Mining and Exploration Ltd. drilled 8 holes totalling 422.5 feet on claim P.554599 (subsequently leased).

During the mapping of the claims, numerous trenches along with some old drill collars were located. This work was believed to have been carried out during the 1930s, although this is difficult to confirm.

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(1) October 1981 name changed from Brown-McDade Mines Ltd. to Brown-McDade Resources Ltd.

REGIONAL GEOLOGY

Denton Township is situated near the western end of the Abitibi greenstone belt and is underlain by Early Precambrian (Archean) supracrustal rocks of volcanic and sedimentary origin. The supracrustal rocks have been intruded by Archean felsic intrusives. The granitic rocks, which underlie roughly half of the township, are situated in the northwest corner, extreme southwest corner, south central and southeast portions of the township.

The youngest rocks found in the township are roughly north-trending diabase dykes believed to be of middle precambrian age. The next youngest rocks are believed to be the felsic intrusives. The felsic plutonic rocks have been interpreted by A.G. Choudry(2) to be of three different ages. The youngest is a pink coloured medium-grained granodiorite situated in the extreme south central portion of the township. The next youngest felsic intrusive is a pink porphyritic granodiorite, with up to 3-centimeter-long K-feldspar crystals, located in the south central portion of the township immediately north of the younger intrusive. The oldest felsic intrusives are pink to grey foliated to gneissic quartz diorite, tonalite and quartz monzonite which are situated in both the northwestern and southwestern portions of the township.

Mafic intrusives make up a very small percentage of the rocks in Denton Township and are thought to be younger than the supracrustal rocks.

The stratigraphic units used in this report are based on those described in D.R. Pyke's report entitled "Geology of

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(2) 1982: Precambrian Geology of Denton Township, Cochrane District; Ontario Geological Survey, Map P.2501, Geological Series - Preliminary Map, Scale 1:15,840 or 1" to ¼ mile, Geology 1981.

the Timmins Area, 1982". Prior to discussing the stratigraphy of Denton Township, it is essential to discuss the structural setting. It is felt that the supracrustal rocks are isoclinally folded about a roughly east-northeast-trending synclinal axis situated near the centre of the township along the Denton-Thorneloe boundary. The syncline is thought to plunge steeply to the east. It should also be noted that all of the contact zones within the supracrustal rocks are transitional in nature and are more often than not interbedded over fairly thick stratigraphic distances.

The youngest of the supracrustal rocks are the Porcupine group metasediments. They are located in the east central portion of the township and are believed to be time equivalent to the lower to middle volcanic formation of the Tisdale group. Proceeding from youngest to oldest, the sediments are followed by the lower volcanic formation of the Tisdale group. This formation is typified by peridotite and basaltic komatiites at the base and Mg-tholeiitic basalts interlayered with komatiites in the upper part. The upper volcanic formation of the Deloro group is the second oldest volcanic formation found in Denton Township. This unit is typified by the abundance of iron formation, both oxide and sulphide facies, in calc-alkalic rhyolitic to dacitic pyroclastics. This unit appears to be fairly similar to the upper volcanic formation of the Tisdale group which has lean, cherty, sulphide facies iron formation in felsic pyroclastics. However, the presence of oxide facies iron formation intersected in Hollinger drill holes (1960) supports the interpretation that this unit is, in fact, the upper volcanic formation of the Deloro group. The oldest volcanic formation present in Denton Township is the middle volcanic formation of the Deloro group. This formation is typified by calc-alkalic flows of andesitic and basaltic composition. Pyroclastics are generally confined to the upper part of this formation. It should also be noted that most ultramafic intrusive rocks are found within this formation.

ECONOMIC GEOLOGY

The major thrust of exploration within Denton Township has been toward locating economic gold mineralization. As a result there are at least three interesting gold showings. The first is located within a group of nine patented claims presently held by Aumo Porcupine Mines Ltd. In a report by J.M. Cohen (1949) on the Aumo Porcupine property, he reports that there are three potential ore sections. Vein #2 contains two lenses totalling 42,525 tons with an average combined grade of roughly $9.00 per ton. The afore-mentioned combined grade was calculted using gold ($35/oz), silver ($0.40/oz) and copper ($0.10/lb) values. Using only the gold values, the author calculates that assuming the tonnage of 42,525 tons does not change, the grade would be roughly 0.144 ounces of gold per ton or 6,123 ounces of gold. The third zone, felt to have some potential, was called the high grade vein. The vein, which is located north of the No. 2 vein, is estimated to have a 330' length with an average width of 1.5' to a depth of 155'. The average grade of the "high grade vein" is $31.95 or .91 ounces of gold per ton. Using the figures above, the high grade zone would contain roughly 6,393 tons or 5,818 ounces of gold.

In the northwest part of Denton Township along Mahoney Creek is a second gold showing of economic interest. Located within claims presently held by Gowest Gold Resources Ltd. is the Mahoney Creek showing. This showing has been examined by a number of companies including Hollinger Consolidated Gold Mines Ltd., Meridian Mining and Exploration Co. Ltd., Gambit Consolidated Exploration Ltd. as well as Gowest Gold Resources Ltd. In 1955, Mr. R.E. Halpenny submitted to Hollinger a number of surface samples from the Mahoney Creek showing. Subsequent to learning that the samples contained significant gold values, Hollinger optioned the property from Mr. Halpenny. In late 1955 and early 1956, Hollinger drilled 13 holes to test the ground optioned. The showing was described as being found

in carbonated andesite which was well mineralized with pyrite and arsenopyrite. The results of the drilling were discouraging in that only a few ore grade assays were obtained over very narrow widths and these were not felt to have any continuity, thus the option was terminated. With the increase of gold prices to $80 per ounce, Meridian Mining and Exploration felt the showing was now worth a second look. In his report on the Meridian Property, Dr. Oja recommended a minimum of 8 holes to test the showing. As a result, Meridian drilled 4 holes during 1974 totalling 415'; unfortunately no assays are available.

In 1977, Gambit Consolidated Exploration Ltd. acquired the Mahoney Creek showing, and during 1979 they drilled 3 holes totalling 902'; however, no assay values were reported.

The last reported drilling in the area around the Mahoney Creek showing was carried out in 1981 by Gowest Gold Resources. Two holes, numbered 81-7 and 81-8 totalling 800', were filed for assessment credits; however, no assay values were reported.

During the summer of 1981, Mr. A. Choudry visited the property and obtained two samples which were assayed for gold content and returned 0.01 and 0.12 ounces of gold per ton. As a result of the lack of assays filed with the diamond drill holes, it is difficult to assess the economic significance of the showing; however, the presence of gold along the east shore of Mahoney Creek is well documented.

The third significant gold showing found within Denton Township is located on leased claim P.554599 held by Brown-McDade Resources Ltd. During the summer of 1982, a limited amount of ore was shipped to Pamour's Schumacher mill. In the August 5, 1982 issue of the Northern Miner, it was reported that a 93-ton bulk sample taken from the main pit zone ran 0.147 ounces of gold per ton, while a second 220-ton shipment ran 0.163 ounces per ton. Along with the aforementioned shipments, the Northern Miner noted that a stockpile of roughly 2,000 tons was awaiting shipment at the property. Geologically the showing is located in a sheared andesite very near the granite contact.

MAGNETIC SURVEY METHOD

Using a Geometrics Proton Magnetometer G-816, readings were taken at no more than 100' intervals along existing grid lines which were cut at 400' intervals.

Base stations were established along the base line at intersections with cross lines, with the exception of cross lines 152E, 156E, 160E and 164E where base stations were located on the south shoulder of Highway 101 due to hydro line interference along the base line. Loops were then read between the bases and the drift applied to all the readings. The operator was G. Tremblay of the City of Timmins in the Province of Ontario.

MAGNETIC SURVEY RESULTS

Results of the survey are plotted and contoured on the accompanying map entitled Denton No. 4, Magnetics, Denton Township, Ontario. The scale used was 1:2400 (1 inch = 200 feet).

With a background of 59,000 gammas, the magnetic relief varies between plus 92 (59,092) and plus 1,732 (60,732) gammas.

As a result of the magnetic survey, nineteen magnetic anomalies have been outlined. For ease of description, the anomalies have been numbered 1 through 19 inclusive on the accompanying map.

Anomalies 1 and 2 are believed to be caused by magnetite-rich iron formation. Both anomalies are highly magnetic and rather isolated, typical of iron formation.

Anomalies 3 through 9 inclusive, along with anomaly 14, are all interpreted to be representative of magnetite-rich quartz diabase dykes.

Anomalies 10, 11, 12, 16, 17 and 19 are generally isolated weakly magnetic anomalies, possibly related to local concentrations of pyrrhotite or magnetite.

Anomalies 13 and 15, which are moderately to strongly magnetic, are of unknown origin; however, local concentrations of magnetite or pyrrhotite are thought to be the most likely cause.

Anomaly 18, which is a magnetic low, is believed to be directly related to the hydro line which produced unusable readings wherever it crossed the grid.

In summary, while the magnetic survey was successful in outlining a number of features such as iron formation and diabase dykes, it has apparently failed to clearly define the granodiorite/andesite contact. This is, however, not surprising as other surveys in the region have also been unsuccessful in this respect.

PROPERTY GEOLOGY

Rock-types and Distribution

The geology of the property is presented on the accompanying map entitled Denton No. 4 - Geology, Denton Township, Ontario. The base map was drawn using a scale of 1:2400 metric or 1 inch equals 200 feet. The mapping was carried out along and between previously cut lines. The 1+00N base line had been established at 90° azimuth with the cross lines being at 180° azimuth. Geological interpretation is based on data acquired through field observations of outcrops in conjunction with geophysical surveys and very limited petrographic work. Outcrop exposure throughout the property is fair to poor - as roughly 5 to 10% of the underlying bedrock is exposed.

The most common rock type mapped within the claim group was a unit of massive andesite flow(s) (A_2). This unit is typically very fine grained, dark green in colour with only a weak schistosity developed. This unit, while generally consistent throughout the property, does exhibit some notable variations -

of these, the presence of fairly well developed pillow lava (A_2P) within claim P.554597. Unfortunately, no reliable top determinations could be made. Also worthy of note is the effect of the intrusive granodiorite (N_4) on the andesite flow(s) near the contact. The most striking is a form of what is believed to be an autoclastic breccia or fragmental (A_2P) most prominent within claim P.554597. This sub-unit is typified by white weathering feldspar-rich breccia fragments in a dark green chloritic matrix. The fragments do not exhibit any schistosity or deformation (elongation) with the exception of a small area within three feet of the granodiorite (N_4) contact. The second obvious effect of the granodiorite on the andesite is the presence of numerous veinlets and small inclusions of granodiorite within the andesite. These once again are best exhibited within claim P.554597.

South of the massive andesite (A_2) unit is a fairly extensive unit of rhyolite tuffs (D_1t). This unit is at least 1000 feet thick as it crosses claims P.554600, P.554601, P.554602 and P.539622. This unit is typified by its fine grained texture, light greyish beige colour and extremely well developed bedding. It is of interest to note that this unit has previously been mapped as both rhyolite tuff and as a clastic metasediment. From thin section examination of a sample from this unit, it was learned that the rock consists of roughly 60% quartz in the form of equigranular anhedral quartz grains averaging 0.1 millimeters in diameter along with a few large anhedral phenocrysts or quartz eyes scattered throughout. The quartz grains were found to be surrounded by felted masses of sericite (35%) along with small laths of muscovite (3-4%) in the process of being altered to sericite. As a result of the thin section work along with regional consideration, this unit has been mapped as a rhyolite tuff. Also worthy of mention is the presence of small chloritic (andesite) dykes (A_2) and minor black carbonitized chlorite schist (A_3cc) within this unit.

South of the unit of rhyolite tuff in the western portion of the claim group is a small portion of a larger unit

of andesite tuff (A_2t). This unit is fine grained, dark green (chloritic) and exhibits well developed finely laminated beds. In one location on line 112E at the contact between the rhyolite tuff and the andesite tuff is a small exposure of light green dacite tuff (C_1t). This, however, is probably a silicified andesite tuff. This concludes the extrusive volcanic rocks encountered during the mapping of the property.

As a result of the mapping within the property, one outcrop exposure of metasedimentary rock was encountered. The outcrop, which was found within claim P.554597, was of magnetite-rich iron formation (E). The exposure was highly gossaned due to oxidizing pyrite, and also present was a fair amount of sugary textured carbonate along with minor silica-rich sections.

The only other rock types found within the property are the younger intrusives. Underlying the northern edge of the claim group is a small portion of a larger batholith of quartz diorite or granodiorite (N_4). This batholith underlies much of the northwestern corner of Denton Township.

The emplacement of the batholith is believed responsible for the autoclastic breccia described earlier. It is also of interest to note that just north of the granodiorite/andesite contact near the north claim line of P.554597, fragments of andesite and previously crystallized granodiorite which have apparently fallen back into the molten magma were observed. The granodiorite unit is typically medium to coarse grained containing quartz, feldspar, and biotite. The exposures within the map area were generally salt and pepper in colour with little or no potassium feldspar present. The youngest of the consolidated rocks encountered are quartz diabase dykes (O) which strike northward and cut all other rock types. These dykes are believed to be of Middle Precambrian age.

In stratigraphic terms, the presence of oxide facies iron formation suggests that the bulk of the supracrustal rock underlying the Denton #4-83 claim group belongs to the Upper Deloro Formation with the possibility of some rocks of the Middle Formation also being present.

Quaternary Geology

The quaternary geology of the Denton #4-83 claim group was mapped in 1980 by C.M. Tucker, J.A. Richards and assistants as part of a larger mapping project that covered Denton Township. The mapping was carried out at a scale of one to 50,000 and covered all or part of 15 townships. This mapping was released in 1983 as Ontario Geological Survey, Map P.2582 Geological Series - Preliminary Map, Quaternary Geology of the Dana Lake Area.

The Denton #4-83 claim group is primarily overlain by a Bedrock-drift complex of undifferentiated till over bedrock. In decreasing abundance this is followed by Eolian deposits of fine to medium grained sand, the Adam Till which is typified by a silty sand matrix with cobbles and boulders, and then by glaciolacustrine shallow-water deposits of fine to coarse sand which have been modified by wind action (Barlow-Ojibway Formation).

Also present in minor amounts are bedrock and organic deposits such as peat bog, swamp or marsh.

In general terms, the undifferentiated till over bedrock is located in the western portion of the claim group. The eolian deposits are basically found around Cripple Creek as are most of the organic deposits. The Adam Till is found in the central portion of the property while the glaciolacustrine shallow-water deposits are found in the northeastern part of the claim group.

STRUCTURAL GEOLOGY

Folding

The rock types situated within the claim group all strike generally northeast; however, those south of the massive andesite (A_2)/rhyolite tuff (D_1t) contact all dip

steeply northwest or vertical while north of the contact the dips measured were all steeply to the southeast or vertical. However, it is important to note that the dips measured in the andesite unit are all measurements of the foliation rather than original bedding as those dips measured in the tuffs further south are believed to be. From drilling along the andesite (A_2)/granodiorite (N_4) contact on leased claim P.554599 it was learned that the contact dips northwest and thus the original flows probably dip northwest as well; therefore, no synformal axis is believed to be present along the andesite (A_2)/ rhyolite tuff (D_1t) contact. The fact that the foliation dips southeast in the andesite, and in a few localities where it was observed in the granodiorite, would suggest or at least is amenable to the presence of a major syncline farther south as previously mentioned earlier in the Regional Geology section of this report.

Faulting

Conclusive evidence of major faulting was not observed during the mapping of the Denton #4-83 claim group. It is, however, the author's opinion that Denton Lake and Cripple Creek may well be the topographic expression of a major northeast trending shear. It is also the author's opinion that this could, in fact, be the western extension of the "Bristol Fault" which is believed to have been intersected by three diamond drill holes drilled by Mining Corporation Ltd. in the southeast corner of Carscallen Township. While the mapping has done little to clarify this hypothesis, the magnetic survey appears to be supportive.

Anomaly "7", which directly corresponds with the outcrop of diabase mapped on XL 124E at 1+00N, appears to be sharply truncated at Cripple Creek; however, it now appears that the only way to confirm the existence of this major shear would be by diamond drilling.

CONCLUSIONS/RECOMMENDATIONS

Both the geological and magnetic surveys have increased the understanding of the geology within the claim group. However, the magnetic survey has also produced a number of anomalies situated in areas where no outcrop exposure is available.

Owing to the importance of pyrrhotite which was found to be intimately associated with the gold mineralization on leased claim P.554599, these anomalies take on increased significance. As such, anomalies 10, 11, 12, 16, 17 and 19 should be checked by follow-up ground geophysics such as electromagnetic and detailed ground magnetic work.

The rhyolite tuff unit's similarity to rocks found in the Hemlo gold camp, along with the visible gold mentioned in the old Wakemac drill hole (#12), has added considerable interest to this unit and follow-up ground geophysics also appears warranted here as well. The above follow-up ground geophysics would be carried out with the objective of locating significant drill targets for the future.

Respectfully submitted,

J. E. Mountjoy.

SELECTED BIBLIOGRAPHY

Canada Dept. of Mines and Technical Surveys, Geological Survey of Canada -

1963: Dana Lake, Cochrane, Sudbury and Timiskaming Districts, Ontario; Aeromagnetic Series Map 2299G, Scale: 1" = 1 mile.

Choudry, A.G. -

1982: Precambrian Geology of Denton Township, Cochrane District; Ontario Geological Survey, Map P.2501, Geological Series - Preliminary Map, Scale 1:15,840 or 1 inch to ¼ mile, Geology 1981.

Ferguson, S.A. and Berry, L.G. -

1957: Geology of Denton Township, Cochrane District; Ontario Department of Mines, compilation map P-28, Scale 1 inch to ¼ mile, Geology 1938.

Pyke, D.R. -

1982: Geology of the Timmins Area, District of Cochrane; Ontario Geological Survey Report 219, 141 p. Accompanied by Map 2455, Scale 1:50,000, 3 charts and 1 Sheet Microfiche.

Tucker, C.M. and Richard, J.A. -

1983: Quaternary Geology of the Dana Lake Area, Cochrane, Timiskaming and Sudbury District; Ontario Geological Survey, Map P.2582, Geological Series - Preliminary Map, Scale 1:50,000. Geology 1980.

....Assessment files, Resident Geologist's Office, Timmins.

Ontario

Ministry of Nat

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TECHNICAL DA[illegible]

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TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geological and Geophysical (ground magnetic)

Township or Area Denton Township

Claim Holder(s) Hollinger Argus Limited
P.O. Box 320, Timmins, Ont. P4N 7E2

Survey Company Hollinger Argus Limited

Author of Report J.E. Mountjoy

Address of Author Box 320, Timmins, Ont. P4N 7E2

Covering Dates of Survey May 12, 1983 - July 8, 1983
(linecutting to office)

Total Miles of Line Cut

SPECIAL PROVISIONS
CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	
–Magnetometer	20
–Radiometric	
–Other	
Geological	20
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Sept.8,1983 SIGNATURE: J.E. Mountjoy
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P	539619
P	539622
P	554597
P	554598
P	554600
P	554601
P	554602
P	554603
P	567640
P	567641

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[illegible] 1983
MINING LANDS SECTION

TOTAL CLAIMS 10

If space insufficient, attach list

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Number of Stations 710 Number of Readings 644

Station interval ≤100' Line spacing 400'

Profile scale

Contour interval 100 gammas

MAGNETIC

Instrument Geometrics G-816 Precession Magnetometer

Accuracy – Scale constant ± 1 gamma

Diurnal correction method Base Line with Base Stations vs. Time

Base Station check-in interval (hours) 1-3 hours

Base Station location and value Base Station established at XL 148E/1+00N BL 59,432

ELECTROMAGNETIC

Instrument

Coil configuration

Coil separation

Accuracy

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency (specify V.L.F. station)

Parameters measured

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time Frequency

– Off time Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

Sept. 13

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

2.5810

#190

Denton Twp.

P-539619

The Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
Geological and Geophysical (ground magnetic)	Denton Township

Claim Holder(s)	Prospector's Licence No.
HOLLINGER ARGUS LIMITED	A-20822

Address: P.O. Box 320, Timmins, Ontario P4N 7E2

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Hollinger Argus Limited	12 05 83 (Day / Mo. / Yr.) 08 07 83 (Day / Mo. / Yr.)	–

Name and Address of Author (of Geo-Technical report): J.E. Mountjoy, P.O. Box 320, Timmins, Ontario P4N 7E2

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	- Electromagnetic	
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

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AUG 5 1983
MINING LANDS SECTION

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	539619	
	539622	
	554597	
	554598	
	554600	
	554601	
	554602	
	554603	
	567640	
	567641	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

JUL 15 1983

Total number of mining claims covered by this report of work: 10

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

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.

For Office Use Only		
Total Days Cr. Recorded: 460	Date Recorded: July 15/83	Mining Recorder
	Date Approved as Recorded: Dec 13/83	Branch Director / Regional Mining Recorder

Date	Recorded Holder or Agent (Signature)
July 15, 1983	J.E. Mountjoy

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. E. Mountjoy,
Box 320, Timmins, Ontario

Date Certified: July 15, 1983

Certified by (Signature)

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File 2.5810

Oct. 13/83

Mining Lands Comments

☑ To: Geophysics Mr. Barlow.

Comments

☐ Approved ☑ Wish to see again with corrections | Date Nov 8/83 | Signature R Bal

☑ To: Geology - Expenditures Mr. Kustra

Comments

☑ Approved ☐ Wish to see again with corrections | Date Oct 27/83 | Signature

☐ To: Geochemistry

Comments

LD

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1593 (81/10)

190

2.5810

1983 09 20

Mr. William L. Good
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geophysical (Magnetometer) and Geological survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims P 539619 et al in the Township of Denton.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-1380

A. Barr:mc

cc: Hollinger Argus Limited
P.O. Box 320
Timmins, Ontario
P4N 7E2
Attention: J.E. Mountjoy

HOLLINGER ARGUS LIMITED

P.O. BOX 320
TIMMINS, ONTARIO P4N 7E2

TELEPHONE: (705) 264-1313

September 12, 1983.

Mr. E. F. Anderson,
Director, Lands Administration Branch,
Ministry of Natural Resources,
Whitney Block, Room 6450,
Queen's Park,
TORONTO, Ontario.
M7A 1W3

RECEIVED
SEP 1 5 1983
MINING LANDS SECTION

Dear Sir:

Re: 10 Claims - P.539619 et al
Denton Township

Enclosed you will find duplicate copies of a Geomagnetic and Geological Survey report, together with the technical data statement, on the above ten claims.

Yours sincerely,

W. H. King

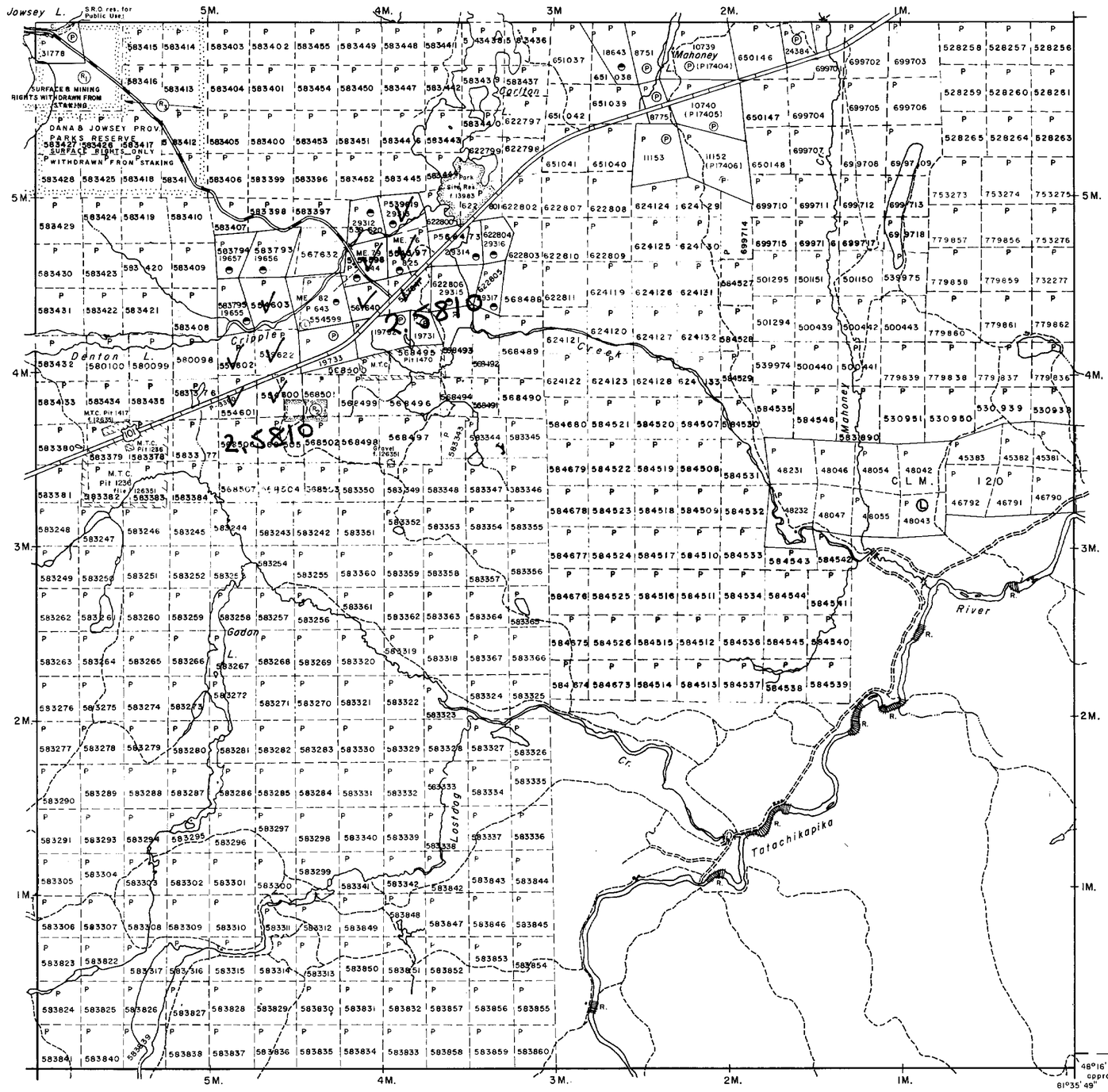
W. H. King,
Records Officer.

Encls.

2.5810

	MAG	Gal						
								1
539619	✓	✓						
622	✓	✓						
554 597	✓	✓						
598	✓	✓						
600	✓	✓						
601	✓	✓						
602	✓	✓						
603	✓	✓						
567 610	✓	✓						
567 641	✓	✓						

CARSCALLEN TWP. M.267



KEEFER TWP. M.290

THORNLOE TWP. M.313

REYNOLDS TWP. M.308

McKEOWN TWP. M. 299

48°16'39" approx
81°35'49"

TOWNSHIP OF

DENTON

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	● or Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.
PATENTED S.R.O.	●

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

This township lies within the Municipality of CITY of TIMMINS.

Areas withdrawn from staking under Section 43 of the Mining Act, R.S.O. 1970 (Sec. 42, R.S.O. 1960).

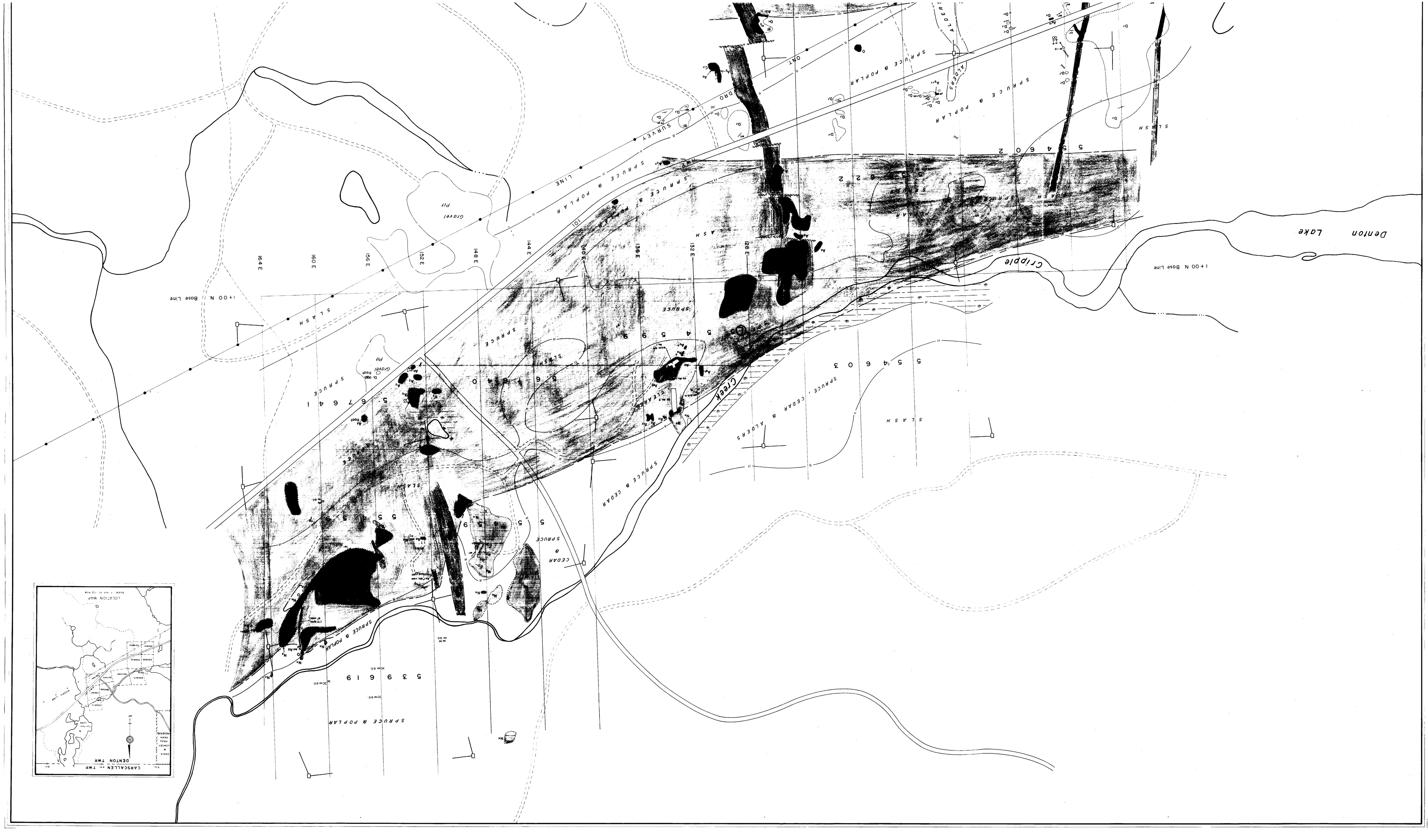
	Order No.	File	Date	Disposition
R1		171506		S.R. & M.R.
R2	W.35/77	126351	11/3/77	S.R.O.
R3	W.66/83	171506	18/11/83	M.R.O.

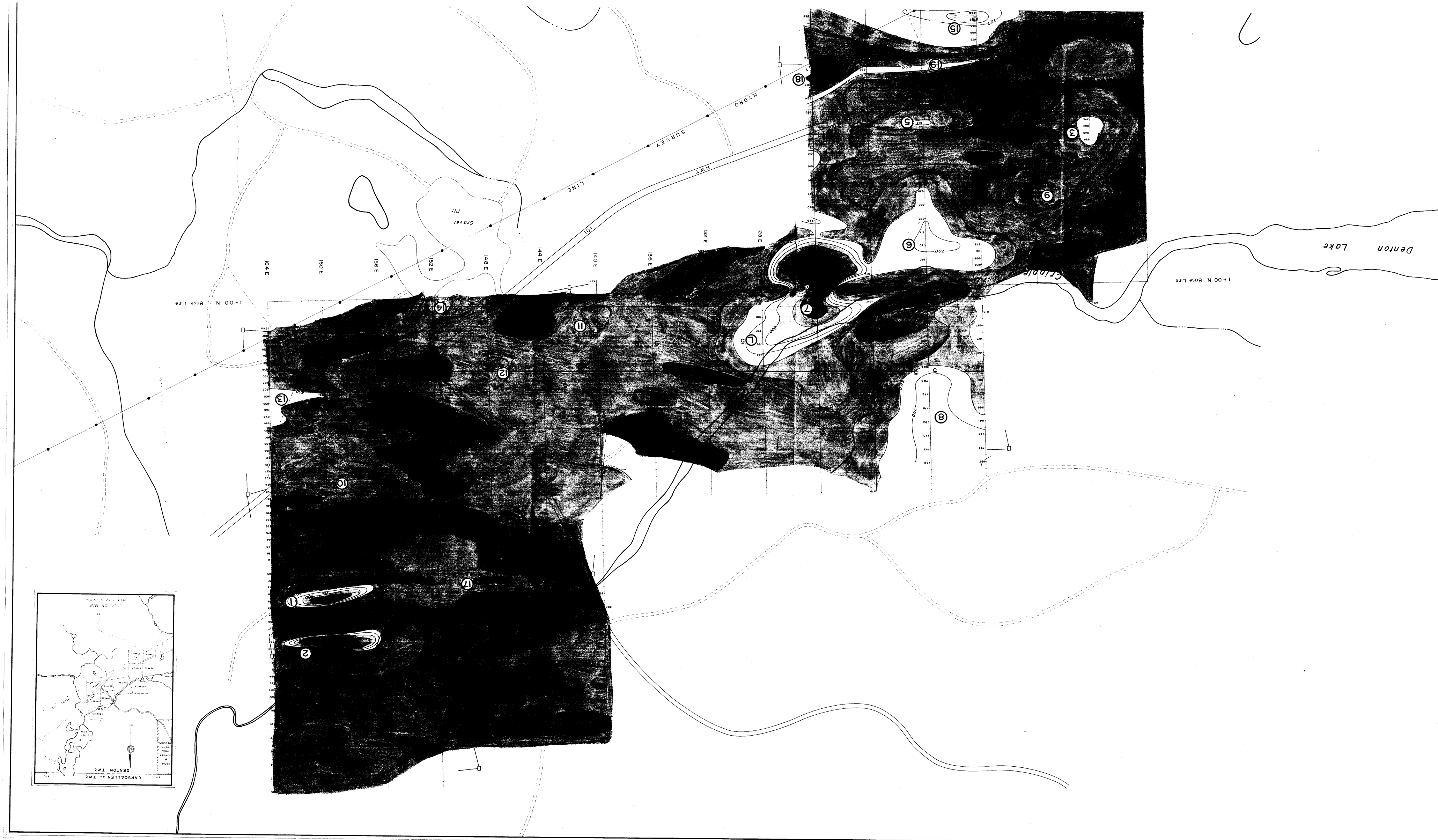
DATE OF ISSUE
DEC 0 9 1983
Ministry of Natural Resources
TORONTO

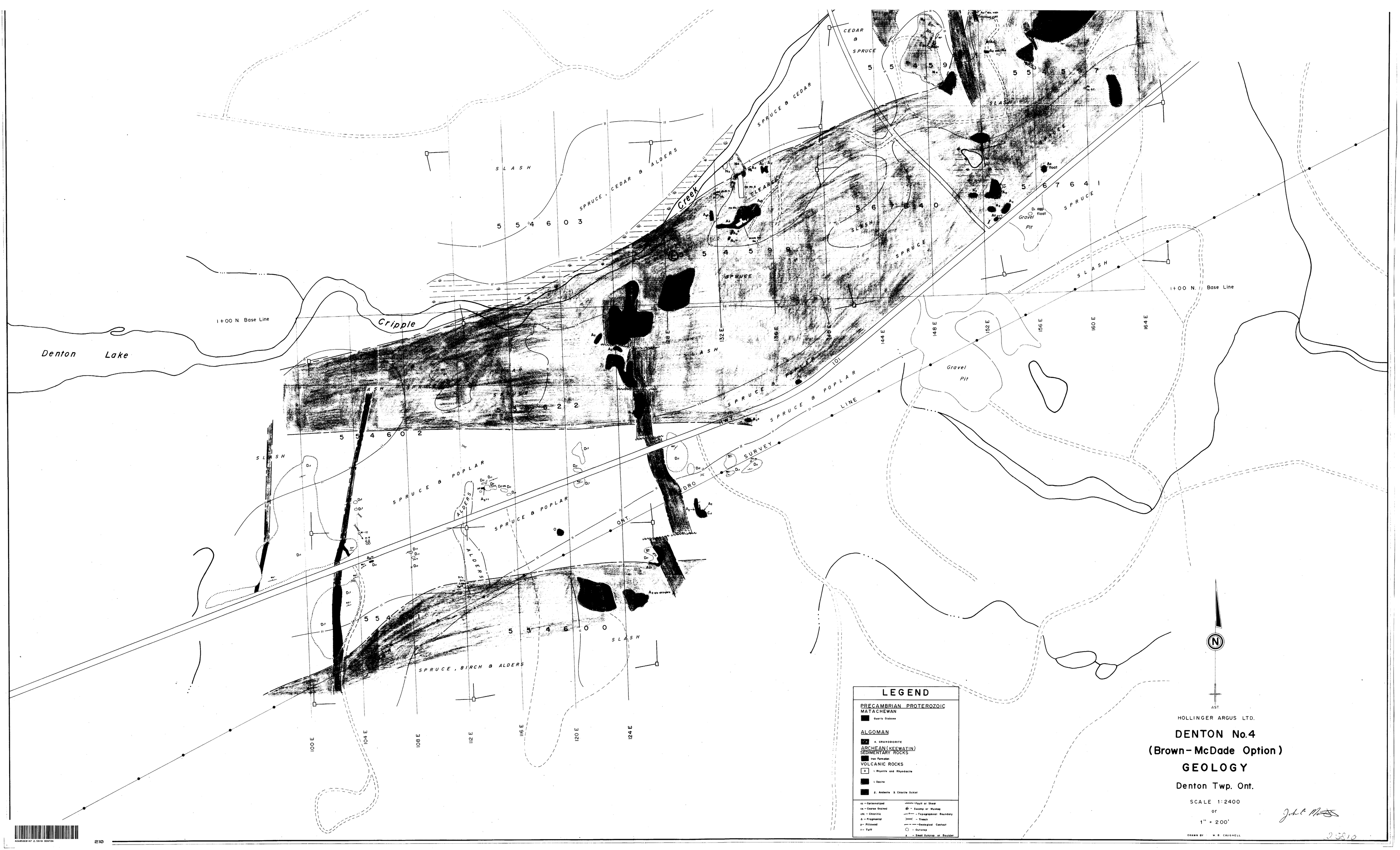
PLAN NO. M.273

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

42A05SE0147 2.5810 DENTON


Denton Lake
Crippple
Creek
1+00 N Base Line
SURVEY LINE
SPRUCE & POPLAR
SPRUCE, CEDAR & ALDERS
SPRUCE & CEDAR
CEDAR & SPRUCE
SLASH
Gravel Pit
5 5 4 6 0 2
5 5 4 6 0 3
5 5 4 5 9 9
5 5 4 5 9 7
5 3 9 6 1 9
5 6 7 6 4 1
5 6 4 0
164 E
160 E
156 E
152 E
148 E
144 E
140 E
136 E
132 E
128 E
CARSCALLEN Tp. TWP
DENTON TWP
LOCATION MAP


Denton Lake
1+00 N Base Line
Gravel Pit
HWY 101
SURVEY LINE
128 E
132 E
136 E
140 E
144 E
148 E
152 E
156 E
160 E
164 E
L5
LOCATION MAP
CARSCALLEN TWP
DENTON TWP



LEGEND

PRECAMBRIAN PROTEROZOIC
MATACHEWAN
- Quartz Diabase

ALGOMAN
- A. GRANODIORITE

ARCHEAN (KEEWATIN)
SEDIMENTARY ROCKS
- Iron Formation

VOLCANIC ROCKS
- R. Rhyolite and Rhyodacite
- I. Dacite
- Z. Andesite & Chlorite Schist

cc – Carbonatized
cs – Coarse Grained
chl – Chloritic
fr – Fragmental
p^ Pillowed
t – Tuff

- Fault or Shear
- Swamp or Muskeg
- Topographical Boundary
- Trench
- Geological Contact
- Outcrop
- Small Outcrop or Boulder

HOLLINGER ARGUS LTD.

DENTON No.4
(Brown – McDade Option)
GEOLOGY

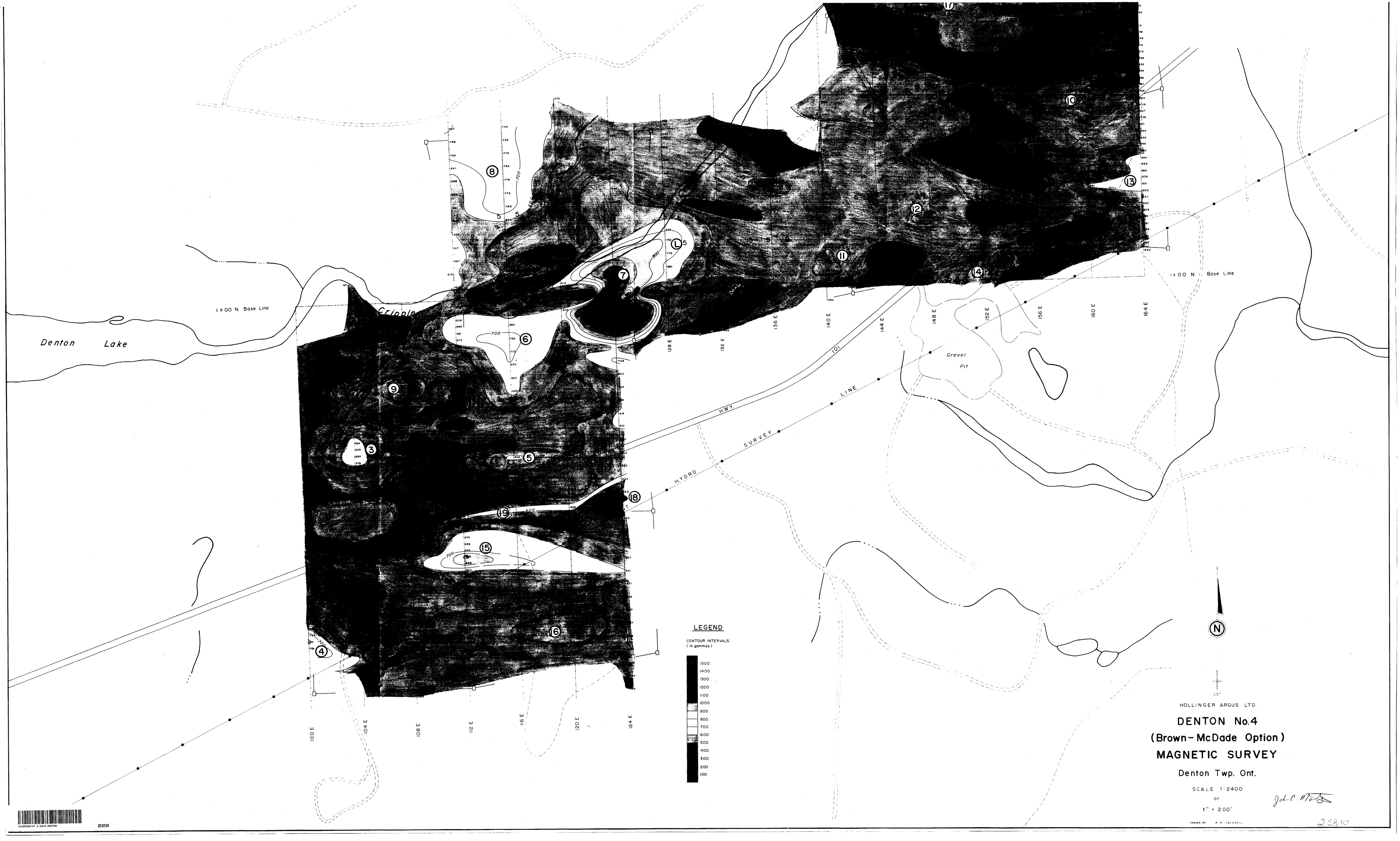
Denton Twp. Ont.

SCALE 1:2400
or
1" = 200'

DRAWN BY W. B. CAUGHELL

23812

210


1+00 N. Base Line
Denton Lake
Cripple
1+00 N. Base Line
Gravel Pit
HWY 101
SURVEY LINE
HYDRO
100 E
104 E
108 E
112 E
116 E
120 E
124 E
128 E
132 E
136 E
140 E
144 E
148 E
152 E
156 E
160 E
164 E
LEGEND
CONTOUR INTERVALS
(in gammas)
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
N
HOLLINGER ARGUS LTD.
DENTON No. 4
(Brown – McDade Option)
MAGNETIC SURVEY
Denton Twp. Ont.
SCALE 1:2400
or
1" = 200'
DRAWN BY W. R. CAUGHELL
25810
220