

2.491



41P14NE0033 2.491 MIDLOTHIAN

010

GEOLOGICAL, GEOPHYSICAL  
AND GEOCHEMICAL SURVEYS  
ON THE  
MIDLOTHIAN TOWNSHIP PROPERTY  
OF  
DENISON MINES LIMITED

Toronto, Ontario.  
June 15, 1971.

R. H. Clayton, M.Sc., P. Eng.  
Watts, Griffis and McOuat Limited

## INTRODUCTION

The claims were of interest because of a number of mineral showings, including a bog-iron deposit and several airborne anomalies which had not been drilled.

## FORMER WORK

The area has been mapped on a scale of 1/2 mile = 1 inch by the Department of Mines. Three diamond drill holes are reported. Two were at a peridotite-rhyolite contact and contained minor zinc. The other was near the northeast corner of Strange Lake and intersected disseminated pyrite in conglomerate and graphitic sediments.

## TABLE OF FORMATIONS

Bright (1970) lists the following:

### Archean

#### Matachewan

Diabase  
Intrusive contact

#### Felsic Intrusive Rocks

Intrusive contact

#### Ultramafic and Mafic Intrusive Rocks

Intrusive contact

#### Metasediments

#### Intermediate and Mafic Metavolcanics

#### Felsic Metavolcanics

Of these the Felsic Volcanics and Ultramafic Intrusives form the bulk of the rocks in the area. Three minor occurrences of mafic igneous rock were seen. They were assumed to be Matachewan igneous rocks although none had a diabasic texture. No felsic intrusives were noted.

## ROCK TYPES

The felsic volcanics are medium to light gray in colour. They are generally comparatively fresh. Occasional darker sections occur in which minor schistosity can be seen. Their texture is generally cryptocrystalline to aphanitic. Quartz can generally be seen in the crystalline sections but it is not a major constituent. Generally the rock can be classified as rhyodacite. Fragmentals are common, both angular and rounded fragments occur, often together, and the median size is about one inch. Mixed rhyolite-andesite fragmentals were seen in the core from one hole.

Fine grained, black sedimentary material, logged as mudstone, was seen in the core from the two diamond drill holes, although none was seen on the surface. It usually occurred as a matrix containing rhyodacite fragments, the proportion of sedimentary material varying from very fine stringers separating the volcanic fragments to one hundred percent of the rock over short lengths of core.

Disseminated pyrite occurs throughout the mudstone. Typically there is about 1% pyrite but there is as much as 50% in some places. Minor chalcopyrite also occurs. No sphalerite was seen but one two-foot length of core assayed 0.5% zinc.

Minor disseminated pyrite is common in the rhyodacite but by no means always present. It is generally more coarsely crystalline than in the sedimentary material. Nodules and stringers up to one inch occur occasionally and in Hole No. 1, eight feet of core averages 50% pyrite, including one foot six inches of massive pyrite.

Two short lengths of core, one in each hole, were classed as andesite. They are quite distinct from the rhyodacite and from each other. In Hole No. 1 the rock is comparatively light in colour and white feldspar crystals are visible, while in Hole No. 2 the rock is dark gray and fine grained. Both contain a little disseminated pyrite. Since no andesite was seen on the surface it is possible that they are actually Keeweenawan dykes without the diabasic texture which these rocks usually have in the area.

The peridotite is mainly olivine, with substantial alteration in places to serpentine and talc. Magnetite is not abundant.

Veinlets of quartz and calcite, generally near vertical, are abundant in the volcanics and in the peridotite.

No diabase was seen on the property but an exposure of gabbro near the northeast end of Strange Lake is probably Keeweenawan dyke material.

### WORK CARRIED OUT

Previous work consisted of two airborne geophysical surveys, one by Canadian Aero, one by Lockwood Surveys, two drill holes on the peridotite rhyolite contact between Lloyd Lake and Trap Lake, and one hole near the northeast end of Strange Lake. Old survey lines can be seen but no ground work is reported.

The work reported here was first directed to large airborne anomaly and several small anomalies on the property. One hole had apparently been drilled on the main anomaly, but it seemed to be across a fault from the best part of the anomaly. No work was reported on the small anomalies.

The first part of the programme, carried out in July, 1970, was as follows:

1. Carry out a geological survey of the property.
2. Clear out and resurvey old lines over the main anomaly and carry out an electromagnetic survey.
3. Carry out a geochemical survey.

The second part of the programme, carried out in April and May, 1971, consisted of:

1. Cutting new lines on strike with the conductor and carry out a new electromagnetic survey to test for the possibility of multiple conductors.
2. Electromagnetic surveys, mainly on lake ice, to try to locate the weak airborne anomalies reported.
3. Reconnaissance electromagnetic surveys in accessible areas.
4. Magnetometer traverses in ultramafic areas.
5. Some geological mapping, which was limited because of snow.
6. One diamond drill hole, 338 feet on the main anomaly.
7. One diamond drill hole, 300 feet on a new anomaly discovered by ground reconnaissance.

## MINERALIZATION

No mineralization of economic significance was discovered. The geo-physical anomalies were explained by massive pyrite in the No. 1 Hole and by pyrite, carbon and graphite in both holes.

Minor chalcopyrite was seen in the core from Hole No. 1 which probably accounts for the weak geochemical copper anomaly. However the zinc anomaly was somewhat stronger and is not accounted for by the assays from Hole No. 1. In Hole No. 2 a 2-foot section assayed 0.5% zinc, although no sphalerite was visible in the core. While this could not account for the anomaly (it is close but on slightly lower ground), it may indicate that there are patches of low grade zinc but that either the No. 1 Hole did not intersect any or that if it did, they were not assayed because no sphalerite was visible.

Peridotite outcrop and float were examined but no asbestos of significance was seen.

Some of the rhyodacite in Hole 2 with little or no interstitial sedimentary material assayed as high as 0.06% nickel which seems high for this type of rock.

## STRUCTURE

Most of the area is underlain by felsic volcanics. Little or no structural indications could be seen in these volcanics, the small amount of banding which was observed was parallel to, and probably associated with, the widespread veinlets of quartz and calcite which occur in the areas. These veinlets are near vertical. The topography gives the impression that there has been east-west folding in the southern part of the property which veers to east-northeast, further north. The only schistosity noted was in float, notably near the southwest end of Strange Lake.

The peridotite intrusive in the south part of the property appears to be near vertical at the east end (from the magnetometer survey), while diamond drill Hole No. 2 indicates that the north contact dips south at about 70 degrees.

PERSONNEL

The following personnel did the following work on the survey. Linecutting is not claimed in the geophysical and geochemical surveys.

<u>Linecutting</u>	<u>Dates</u>	<u>Hours</u>	<u>Total (8 hr.) Days</u>
P. LaBreque	July 10-11, 1970	8	2
L. Stevenson	July 10-11, 1970	8	2
J. E. George	April 26-May 3, 1971	8	7
R. George	April 27-May 3, 1971	8	6
			17

<u>Geological survey</u>	<u>Dates</u>	<u>Hours</u>	<u>Total (8 hr.) Days</u>
P. LaBreque	July 13-14, 1970	4	1
D. Beggs	July 13-15, 1970	4	1½
D. DesRosiers	April 28, 1971	8	1
	May 5, 1971	8	1
			4½

## PREVIOUS WORK

Two airborne electromagnetic surveys are on record in the assessment files, one of which incorporates a magnetic survey. One large electromagnetic anomaly appears on both surveys, with some indication that it might actually be two distinct anomalies. Several small anomalies are also recorded.

Line had been cut over the main anomaly, but it is doubtful if it was cut for geophysical purposes because the lines are not at right angles. No ground surveys are on record.

## WORK DONE

The following geophysical work was done:

1. Vertical loop E.M. over a recut old grid with lines at 400-foot intervals.
2. Magnetometer traverses on two of the above lines.
3. Horizontal and vertical loop surveys over a new grid at 300-foot intervals in the same general area but with the baselines parallel to the strike of the anomaly.
4. A magnetometer survey along trails.
5. Vertical loop reconnaissance on lakes and along trails, mainly directed to locating small airborne anomalies.

On the old grid 1.0 miles of vertical loop E.M. was carried out and 0.38 miles of magnetometer survey.

On the new grid 1.68 miles of vertical loop E.M. and 0.66 miles of horizontal loop E.M. were carried out.

On lakes and trails 1.90 miles of vertical loop survey and 0.57 miles of magnetometer survey were completed.

Stations were at 100-foot intervals or less.

	<u>Vertical E.M.</u>	<u>Horizontal E.M.</u>	<u>Magnetometer</u>
Old grid	1.00	----	0.38
New grid	<u>1.68</u>	<u>0.66</u>	----
Total grid	2.68	0.66	<u>0.38</u>
Other	<u>1.90</u>	----	<u>0.57</u>
Total	4.58	----	0.95

There were fifty-three stations on the old grid, eighty-four stations on the new grid, one hundred and two reconnaissance E.M. stations and thirty reconnaissance magnetometer stations.

#### Instruments Used

1. Sharpe SE 250, Frequency 1,000 c.p.s. Used for the E. M. survey on the old grid and for most reconnaissance.
2. McPhar V.H.E.M. Frequencies 600 and 2,400 c.p.s. Used on new grid and as a vertical loop unit for some reconnaissance.
3. Sharp MF-1 magnetometer on the 0-3,000 scale.

#### RESULTS AND CONCLUSIONS

The main airborne anomaly was easily detected. It was traced for a strike length of 2,000 feet. Total length is probably about 2,500 feet based on negative reconnaissance results at the west end and the fact that the anomaly is weak on the most easterly line.

The results indicate a conductor which could be massive sulphides on line 400 west on the old grid or line 1200 east on the new grid but which, if sulphides, is generally less than massive over most of its length. A dip of between 50 degrees south and vertical is indicated. A single conductor is indicated at the west end with two conductors at the west end. The No. 1 Hole was close to the west end and two conductors were intersected. Presumably they correspond to the two conductors at the east end but are too close to show as separate conductors at the hole location.



One conductor was 8 feet of 50% pyrite, including 1' 6" of massive pyrite, in a rhyodacite fragmental. The other consisted of up to 50% disseminated pyrite with substantial carbon and some graphite in the sedimentary matrix of a rhyodacite fragmental.

Another anomaly occurred at around 1,000 feet south on lines 900 east and 1200 east on the new grid. It was discovered by reconnaissance and re-run after extending the grid. It also indicated less than massive sulphides and proved to be disseminated pyrite, generally 10-20% by volume but as high as 50% in places. The rocks were similar to those from Hole 1 but lengths of rhyolite fragmentals, fragmentals with sedimentary matrix, and mudstone were intermixed rather than forming two distinct and separated zones.

A number of small airborne anomalies were looked for. No dip angles were recorded but in traverses over Bess Lake, Mavis Lake and Strange Lake, minor conductivity was indicated by minima instead of nulls. This was interpreted as lake bottom conductivity. No conductivity at all was noted at Mitre Lake and Weary Lake, and the dip angles recorded at Strange Lake were almost certainly caused by the proximity of the transmitter to the southern branch of the main anomaly. Dip angles were recorded when the transmitter was on the shore of the lake but none when it was on the lake ice.

There appeared to be a weak magnetic anomaly close to the main electromagnetic anomaly so the two lines surveyed were repeated twice, setting up the instrument each time (not the usual procedure with this instrument). After averaging the second and third surveys and removing a "regional" trend, it appeared that there might be an anomaly of somewhat less than 50 gammas about 50 feet north of the conductor, but this was too close to background to be of much significance.

A magnetometer traverse along the trail indicated a peridotite outcrop between the northwest end of Lloyd Lake and the southwest end of Strange Lake. It appeared to cease abruptly to the east but could have been continuous with the peridotite outcrop at the east side of the northern tip of Lloyd Lake. Hole No. 2 intersected peridotite between the two drill holes.

There is a similar anomaly, about 400 gammas, 800 feet further south but no peridotite was noted. Float in the area is mainly rhyolite with some granite. It seems that the peridotite occurs in much smaller lenses than is shown on the O.D.M. maps.

Up to 5% disseminated pyrite is seen on a hill near the south boundary but reconnaissance electromagnetic traverses gave no indications of conductivity. Dip angles were all zero and nulls were all clear. The Sharpe SE 250 was used for this reconnaissance.

PERSONNEL EMPLOYED

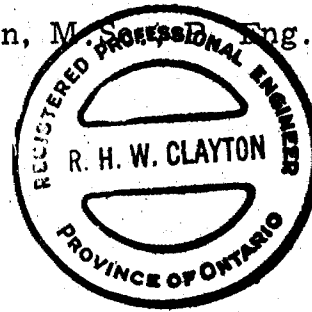
<u>Person</u>	<u>Date</u>	<u>Hours</u>	<u>Type of Survey</u>	<u>Claims</u>
R. H. Clayton	13/7/1970	8	Vertical loop E. M.	284376
"	14/7/1970	4	" " "	284377
"				284379
"	15/7/1970	8	Magnetometer	284376 —
"				284379 —
"	20/7/1970	8	Plotting —	
"	21/7/1970	8	Report writing —	
S. Anand	27/7/1970	8	Drafting —	
R. H. Clayton	16/4/1971	8	Recon. E. M.	284376-77
"				284489
"	17/4/1971	4	Magnetometer	284379 —
"				284489 —
"	26/4/1971	8	Horizontal loop E. M.	284376
"				284379
"	27/4/1971	8	Horizontal E. M.	284484
"				284377
"	29/4/1971	3	Plotting —	
"	1/5/1971	2	Vertical E. M.	284376
"				284379
"	2/5/1971	8	Recon. E. M.	284379
"				284489
"	1/6/1971	8	Report writing —	
"	2/6/1971	8	Report writing —	
L. Stevenson	13/7/1970	8	Vertical E. M.	284376
"	14/7/1970	4	Vertical E. M.	284377
"				284379

<u>Person</u>	<u>Date</u>	<u>Hours</u>	<u>Type of Survey</u>	<u>Claims</u>
L. Stevenson	15/7/1970	8	Magnetometer	284376 — 284379 —
D. DesRosiers	16/4/1971	8	Recon. E. M.	284376-77 284489
"	17/4/1971	4	Magnetometer	284379 — 284489 —
"	26/4/1971	8	Horizontal E. M.	284376 284379
"	27/4/1971	8	Horizontal E. M.	284484 284377
"	1/5/1971	2	Vertical E. M.	284376 284379
"	2/5/1971	8	Recon. V.E. M.	284379 284489

I certify that the above work was carried out by myself or under my direct supervision.

*R. Healy*

R. H. Clayton, M. S. Eng.



8 Hr. days  
 EM - 11 1/2  
 Mag - 3  
 Reports - 5 1/2

## INTRODUCTION

The property is in an area of flat rhyolite hills interspersed with small lakes and swamps. Near the area of interest there are two occurrences of bog iron in a swamp.

On the rhyolite hills there are generally three soil layers, a humus layer, an A layer of brown, loamy soil, and a gray B layer. The swamps consist of decayed vegetable matter.

## LOCATION

The claims are close to the centre of Midlothian Township. They are accessible by 36 miles of road and 2 miles of trail from Matachewan.

The numbers are 284375, 284376, 284377 and 284379. The claims are the property of Denison Mines Limited. The work was carried out by Watts, Griffis and McOuat Limited, Consulting Geologists and Engineers.

## WORK DONE

Samples were taken at 100-foot intervals along the grid system and from the bog iron. There were fifty-three stations.

On the rhyolite ridge where the conductor is located, most samples were taken from a well developed layer of dark brown loamy soil. In places the soil cover was too thin to have developed. In particular, Station 700 north on 400 west is on an outcrop, and Station 300 north on Line O is in an area of thin cover. This may explain the isolated highs at these two stations. The soil consists largely of decayed vegetable matter.

Assays were made by atomic absorption after screening through 80 mesh. The results are supposedly accurate to  $\pm$  25%. All samples were assayed for copper and zinc, and on Line 400 west only for lead and silver as well.

## INTERPRETATION

The highest values of zinc were about five times background. The two isolated copper highs were about five times background, but other copper highs were only two to three times background. The best anomalies were on Line 400 west which also has the best E. M. anomaly. There is a moderate copper anomaly immediately south and downhill from the conductor, with a large zinc anomaly of up to 290 ppm starting 100 feet further south. Silver assays were generally at the minimum detectable 0.1 ppm, but the only reading of 0.2 ppm was at the station closest to the crossover.

From 200 south to 600 north the samples were taken from a well-defined soil horizon. From 300 south to 600 south the samples were taken in the bog, but there does not appear to be any difference in background values between the bog and the rhyolite ridge. The high values on 700 north may be a result of the thin soil as suggested above, however, although there is some slightly higher ground in between, this station is much lower than the conductor.

Results from the other lines are less good, but there are generally higher values close to the conductor. There is also a small anomaly about 500 feet south of the conductor and roughly parallel to it. Most of it is in the bog but this does not seem to be controlling factor.

There was no lead anomaly, and values in the bog iron were low.

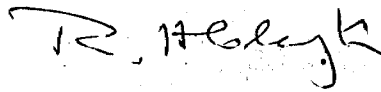
The overall picture is consistent with the possibility that the conductor represents a copper-zinc sulphide body, however such a pattern could occur equally well from a pyrite zone with low copper and zinc values. The anomaly seems somewhat too big to be background variation, but this possibility cannot be ruled out. Bearing in mind the presence of bog iron, the most likely cause of the anomaly seems to be sulphides with at least some zinc and copper.

## PERSONNEL EMPLOYED

The samples were taken by P. LaBrequé and D. Begg. Each worked eight hours on this work on July 12, 1970. The work was under the field supervision of R. H. Clayton who also did the interpretation and spent two days, of eight hours each, July 20th and 21, 1970, on interpretation, report writing, and preparing the maps. The maps

were drafted by S. Anand on July 26th and 27, 1970.

Respectfully submitted,



Toronto, Ontario.  
June 15, 1971.

R. H. Clayton, M.Sc., P. Eng.  
Watts, Griffis and McOuat Limited



## GENERAL INFORMATION

### Location and Access

The property consists of 10 claims in Midlothian Township. Access is westward from the town of Matachewan via Highway 512 and its extension for 26 miles, then south by a bush road for 10 miles to Sirola Lake beyond the old Stairs Mine, then 2 miles east by an improved trail to the drill hole locations on the property.

The northeast corner of the property is in Mavis Lake, the east boundary cuts Mitre Lake, and the south boundary cuts two arms of Lloyd Lake.

### Ownership

The recorded owner is Denison Mines Limited, 4 King Street West, Toronto, Ontario.

This work is submitted by Watts, Griffis and McOuat Limited, Consulting Geologists and Engineers. The claims are numbered 284376, 284377, 284378, 284379, 284380, 284484, 228488, 284489 and 228490.

## PERSONNEL

The following men were employed on the surveys:

R. H. Clayton,	608 - 45 Dunfield Avenue, Toronto 295, Ontario.
D. F. DesRosiers,	280 Wellesley Street East, Toronto, Ontario.
P. LaBreque	3495 Avenue Van Horne, Montreal 251, Quebec.
L. Stevenson	1710 - 75 Thorncliffe Park Drive, Toronto, Ontario.
D. Begg	40 Naig Street, Espanola, Ontario.
S. Anand	208 Geoffrey Street, Toronto 154, Ontario.
J. E. George	P.O. Box 11, Matachewan, Ontario.
R. George	P.O. Box 11, Matachewan, Ontario.

Clayton, LaBreque, Stevenson and Begg were on the property from July 9th to the 15th inclusive, Clayton and DesRosiers April 16 and 17, 1971, April 26 and 27, 1971, and May 2 and 3, 1971. DesRosiers April 28th to May 1st, J. E. George April 26th to May 1st and May 3rd, R. George April 27th to May 1st and May 3rd.

Time spent setting up camp, working on adjacent claims and supervising drilling is not included.



REFERENCES

Marshall, H. I.

Geology of Midlothian Township  
Ontario Department of Mines, 56th Annual Report

Volume LVI - Part V, 1947

With map 1" - 1,000 ft.

Bright, E. G.

Geology of Halliday and Midlothian Townships  
Ontario Department of Mines Geological Report 79, 1970

With map 1" - 1/2 mile.



# BARRINGER RESEARCH

Watts, Griffis, & McQuat  
Suite 911  
159 Bay street  
Toronto, Ontario

## Geochemical

## Laboratory Report

BARRINGER RESEARCH LIMITED  
304 CARLINGVIEW DRIVE  
REXDALE, ONTARIO, CANADA  
PHONE: 416-677-2491  
CABLE: BARESEARCH

DATE July 23, 1970

297 70

Attn: Hugh Clayton

REPORT NUMBER 188

WGM PROJECT NO.

705-2

FILE NO.

*L. Davis*

SAMPLE NUMBER	Total Cu ppm	Total Zn ppm		Sample No.	Total Cu ppm	Total Zn ppm		Sample No.	Total Cu ppm	Total Zn ppm
0 1S	18	47		2N	4	38		1000E	5	22
2S	8	40		3N	6	31		1100E	5	27
3S	7	38		4N	7	54		BL 100W	I.S.	I.S.
4S	14	58		5N	10	48				(43)
5S	8	49		8E1S	12	150				
0+00 0	11	55		2S	13	60				
0+00 1N	8	41		3S	4	82				
2N	11	47		12E0	6	41				
3N	37	110		1N	8	36				
4N	4	38		2N	4	34				
0+005N	8	22		3N	3	37				
4E 0	3	40		4N	6	120				
1N	7	27		12E5N	8	67				
2N	11	12		BL 100E	4	44				
1S	16	41		200E	17	150				
2S	3	70		300E	11	30				
3S	8	44		400E	3	28				
4E 4S	19	130		500E	7	39				
8E 0	8	42		600E	6	41				
1N	3	36		700E	10	61				





**DIAMOND DRILL HOLE LOG**

COMPANY Denison Mines Limited,

Property: \_\_\_\_\_  
 Hole No: \_\_\_\_\_ Coords: \_\_\_\_\_  
 Bearing: \_\_\_\_\_ Angle: \_\_\_\_\_

Depth: \_\_\_\_\_

				SAMPLE					ANALYSIS			
FROM	TO	DESCRIPTION	% SULPH.	CORE REC'D 100%	NO.	FROM	TO	LENGTH				
		red hematite staining										
		35 - 37 Highly broken										
		38 - 39 Few pyrite flakes along some of	tr									
		the fracture surfaces										
		38.5 - 40.5 Granular										
		40.5 Pyrite along fracture face	tr									
		41 - 42 Few flakes of pyrite	tr									
		42 - 47 Broken										
	50.5	47-50.5 Laced with soft white material,										
		pyrite along fractures as thin	tr									
		plates (minor quantities)										
50.5		Soapstone										
		Green-gray, very soft, greasy feel with										
		vitreous lustre, banding about 30° to core										
		53 - 57 Small patches of calcite.										

**DIAMOND DRILL HOLE LOG**

COMPANY Denison Mines Limited

Property: \_\_\_\_\_  
 Hole No: \_\_\_\_\_ Coords: \_\_\_\_\_  
 Bearing: \_\_\_\_\_ Angle: \_\_\_\_\_

Depth: \_\_\_\_\_

FROM	TO	DESCRIPTION	% SULPH.	CORE REC'D 100%	NO.	SAMPLE			ANALYSIS				
						FROM	TO	LENGTH					
		60'. Trace of pyrite and chalcopyrite	tr										
	62.5	61 - 62.5 Laced with calcite veins (5%)											
62.5		Talcose peridotite.											
		Dark gray with veins (up to 1/2")											
		and veinlets of light gray talcose											
		material, core feels greasy with											
		vitreous lustre; calcite veins throughout											
		67' Traces of chalcopyrite in pyrite											
		veinlet 1/16" on fracture surface											
		68 - 74' Numerous veinlets of calcite											
		and talc.											
		69.5 Trace of pyrite.											
		82 - 83 Contains calcite crystals (20%).											
		and traces of pyrite with	tr										
		chalcopyrite											
		83 - 87 As above with more soapstone											

**DIAMOND DRILL HOLE LOG**

COMPANY Denison Mines Limited

Property: \_\_\_\_\_  
 Hole No: \_\_\_\_\_ Coords: \_\_\_\_\_  
 Secring: \_\_\_\_\_ Angle: \_\_\_\_\_

Depth: \_\_\_\_\_

FROM	TO	DESCRIPTION	% SULPH.	SAMPLE					ANALYSIS				
				CORE REC'D 100%	NO.	FROM	TO	LENGTH					
		and about 10% calcite, no mineralization											
		87 - 90.5 about 15% soapstone and no calcite.											
		90.5 - 105. Trace of soapstone and											
	105.	10% calcite.											
105.		Dacite											
		Contains much calcite, light gray											
		122' 1" calcite vein											
		132' 1/2" calcite vein											
		138' 1/2" calcite vein											
		All are about 30° to the core											
	170.5	Axis											
170.5		Andesite											
		Gray black with minor pyrite											
		disseminations, numerous quartz veinlets											
	175.5	at 30° to the core.											

**DIAMOND DRILL HOLE LOG**

COMPANY Denison Mines Limited

Property: \_\_\_\_\_  
 Hole No: \_\_\_\_\_ Coords: \_\_\_\_\_  
 Bearing: \_\_\_\_\_ Angle: \_\_\_\_\_

Depth: \_\_\_\_\_

FROM	TO	DESCRIPTION	% SULPH.	SAMPLE					ANALYSIS			
				CORE REC'D 100%	NO.	FROM	TO	LENGTH	Cu	Zn	Ni	Fe
175.5		Andesite-rhyodacite breccia.										
		Laced with calcite veinlets,										
	177.5	disseminated pyrite up to 25% of rock	25		5903	175.5	177.5	2.0	0.005	0	0.06	1-2%
177.5		Carbonaceous mudstone										
		Black with a few partings of										
		graphite; white material in										
		veinlets and small patches; up to										
		10% pyrite in patches and veinlets										
	179.5	with hematite stain on a few partings	8		5904	177.5	179.5	2.0	0.2	0.5	0.08	M-7%
179.5		Rhyodacite breccia										
		Contains few carbonaceous partings										
		and 40% pyrite in patches up to 1"										
	180.5	in diameter	40		5905	179.5	180.5	5.0	0	0	0.06	M-7%
180.5		Banded Rhyodacite										
		Green-gray with disseminated pyrite										
		throughout (+/- 1%), banding about 30° to										



**DIAMOND DRILL HOLE LOG**

COMPANY Denison Mines Limited

Property: \_\_\_\_\_  
 Hole No: \_\_\_\_\_ Coords: \_\_\_\_\_  
 Secring: \_\_\_\_\_ Angle: \_\_\_\_\_

Depth: \_\_\_\_\_

FROM	TO	DESCRIPTION	% SULPH.	SAMPLE					ANALYSIS			
				CORE REC'D	NO.	FROM	TO	LENGTH	Cu	Zn	Ni	Fe
		core axis										
		185 - 190.5 Quartz veins and patches										
		+/- 15%.										
		188' 1/4" vein of pyrite and dark										
		brown mineral.										
		190 - 190.5 Pyrite makes up 5 - 10% of										
		rock in veinlets, quartz veins and	7									
	190.5	disseminated patches										
190.5		Carbonaceous rhyodacite breccia zone.										
		Few minor partings of graphite,										
		carbonaceous material 60% of core,										
	192	pyrite disseminated and patches (+/- 20%)	20	3.0	5906	190.5	193.5	3.0	0.01-0.02	0	0.08	M-MH
192		Rhyodacite breccia zone										
		contains sections of carbonaceous										
		material and 30 - 40% pyrite	35									
	193.5	193 - 193.5 Carbonaceous breccia zone										

**DIAMOND DRILL HOLE LOG**

COMPANY Denison Mines Limited

Property: \_\_\_\_\_  
 Hole No: \_\_\_\_\_ Coords: \_\_\_\_\_  
 Bearing: \_\_\_\_\_ Angle: \_\_\_\_\_

Depth: \_\_\_\_\_

FROM	TO	DESCRIPTION	% SULPH.	SAMPLE			ANALYSIS							
				CORE REC'D	NO.	FROM	TO	LENGTH						
193.5		Rhyodacite breccia zone												
		Trace of carbonaceous material and												
	194	minor pyrite.												
194		Rhyodacite.												
		medium gray-brown with quartz												
		stringers at various intervals												
		through core; disseminated pyrite												
		throughout.												
		194 1/4" calcite vein at 30° to core axis												
		197 - 198 calcareous zone with calcite												
		stringers, pyrite veinlets and												
		carbonaceous partings all at												
		30° to the core axis.												
		205 1/4" calcite vein cutting core												
	218	at 20° to the axis.												

**DIAMOND DRILL HOLE LOG**

COMPANY Denison Mines Limited

Property: \_\_\_\_\_  
 Hole No: \_\_\_\_\_ Coords: \_\_\_\_\_  
 Bearing: \_\_\_\_\_ Angle: \_\_\_\_\_

Depth: \_\_\_\_\_

FROM	TO	DESCRIPTION	% SULPH.	SAMPLE					ANALYSIS					
				CORE REC'D	NO.	FROM	TO	LENGTH						
218		Rhyodactie and Rhyodactir breccia												
		They grade back and forth into												
		each other with no clearly defined												
		boundaries. Breccia contains rounded												
		and angular fragments averaging												
		3/4"												
		Light-medium gray to gray green												
		with calcite and quartz stringers												
		throughout; pyrite is generally												
		disseminated but concentrates in a												
		few patches to 1/2" diameter and												
		along some fractures ( less than												
	300	1% pyrite).												
300		END OF HOLE.												
		Core recovery was <del>more than</del> 100%.												

**DIAMOND DRILL HOLE LOG**

COMPANY Denison Mines Ltd.

Property: Midlothian

Hole No: 1

Coords: 11+98 E 2+10 S

Page 1 of 3

Bearing: Grid N, N 24° E. T.

Angle: - 50°N

Depth: 336"

FROM	TO	DESCRIPTION	% SULPH.	SAMPLE			ANALYSIS						
				CORE REC'D	NO.	FROM	TO	LENGTH	Cu	Zn			
0	8	Overburden											
8		Rhyo-dacite fragmental. Light grey. Minor quartz stringers. Scattered pyrite and limonite ± 1%.											
	29.5	Gorge 19.5 - 20 <i>Gorge</i>											
29.5		As above with 20% pyrite in large blebs (± 1")	20										
30.5		Massive pyrite. Partly crystalline (cubes). Calcite stringers generally 60° to core axis.	80		1	30.0	32.0	2.0	0.003	Tr			
	32	Minor limonite and hematite.											
32		As above with 50% pyrite in massive pods and stringers averaging 2".	50										
38		Rhyo-dacite											
		45-57 Minor black stringers											
		57-66 Fragments more noticeable in a dark grey groundmass.											... 2.

**DIAMOND DRILL HOLE LOG**

COMPANY Denison Mines Ltd.

Property: Midlothian

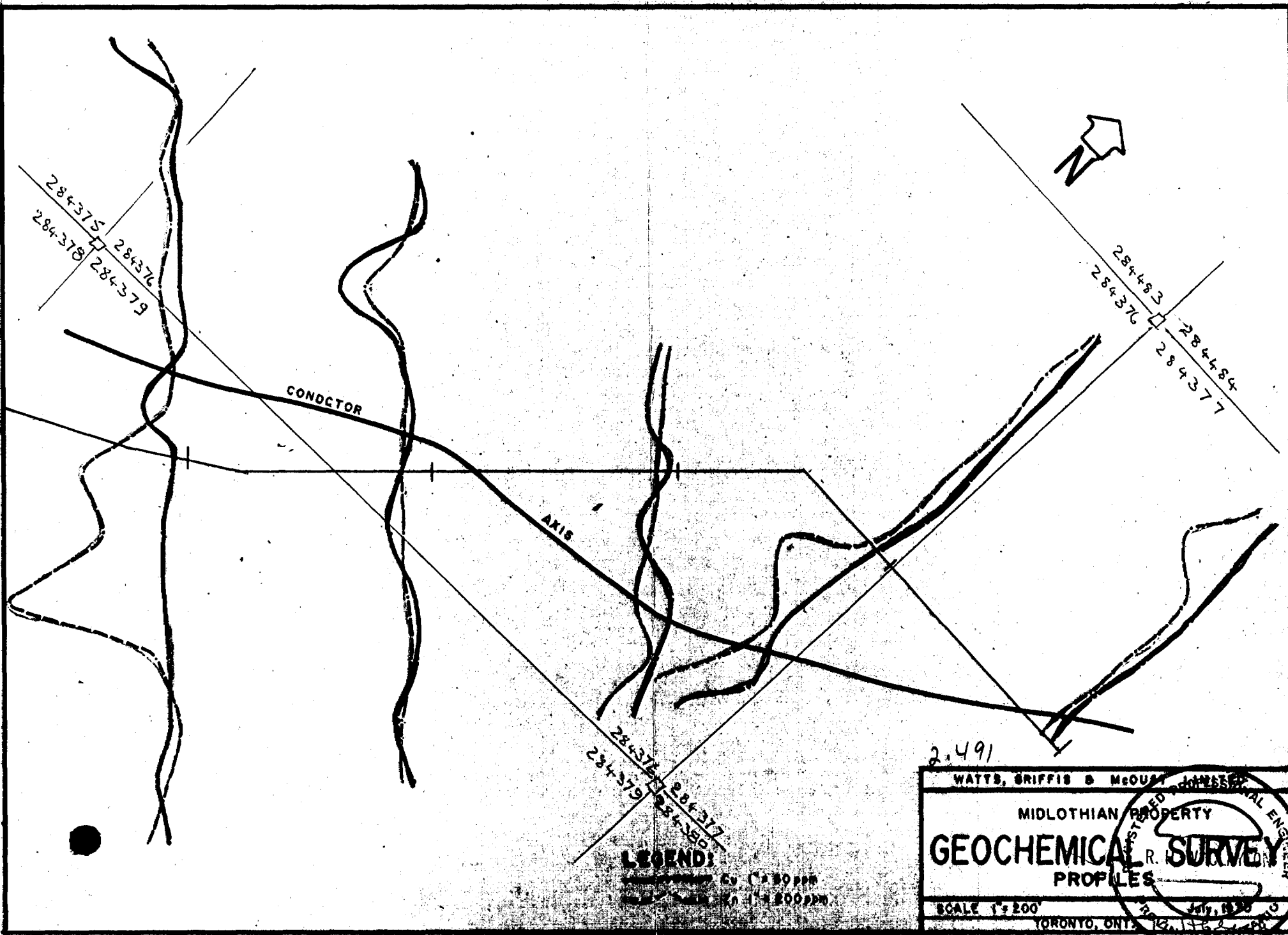
Hole No: 1 Coords: \_\_\_\_\_

Beering: \_\_\_\_\_ Angle: \_\_\_\_\_

Depth: \_\_\_\_\_

				SAMPLE					ANALYSIS			
FROM	TO	DESCRIPTION	% SULPH.	CORE REC'D	NO.	FROM	TO	LENGTH				
		Minor calcite stringers at 60° to core axis.										
		66-186 Fragments less prominent. 1" green										
		porous material at 92'. No reaction to acid.										
		97-107 2% pyrite both in large blebs and	2									
		disseminated.										
		155-177 Broken, some gorge.										
		185-200 Fragments prominent in dark groundmass.										
		200-204 10% pyrite as blebs	10									
		211-227 10% quartz stringers up to 1"										
		231-236 50% quartz, 25% black rock and 25%										
	236	green rock both aphanitic and non-reactive										
		to acid.										
236		Rhyo-sediment. Dark grey fine grained rock with										
		light grey rhyotite fragments. Carbon and										
	252	some graphite.				251.0	253.0	2.0	0.01	0.007	0	
252		Mudstone. Almost black, calcite 15%.										... 3.





284375  
284376  
284378  
284379

284483  
284484  
284485  
284486

CONDUCTOR

AXIS

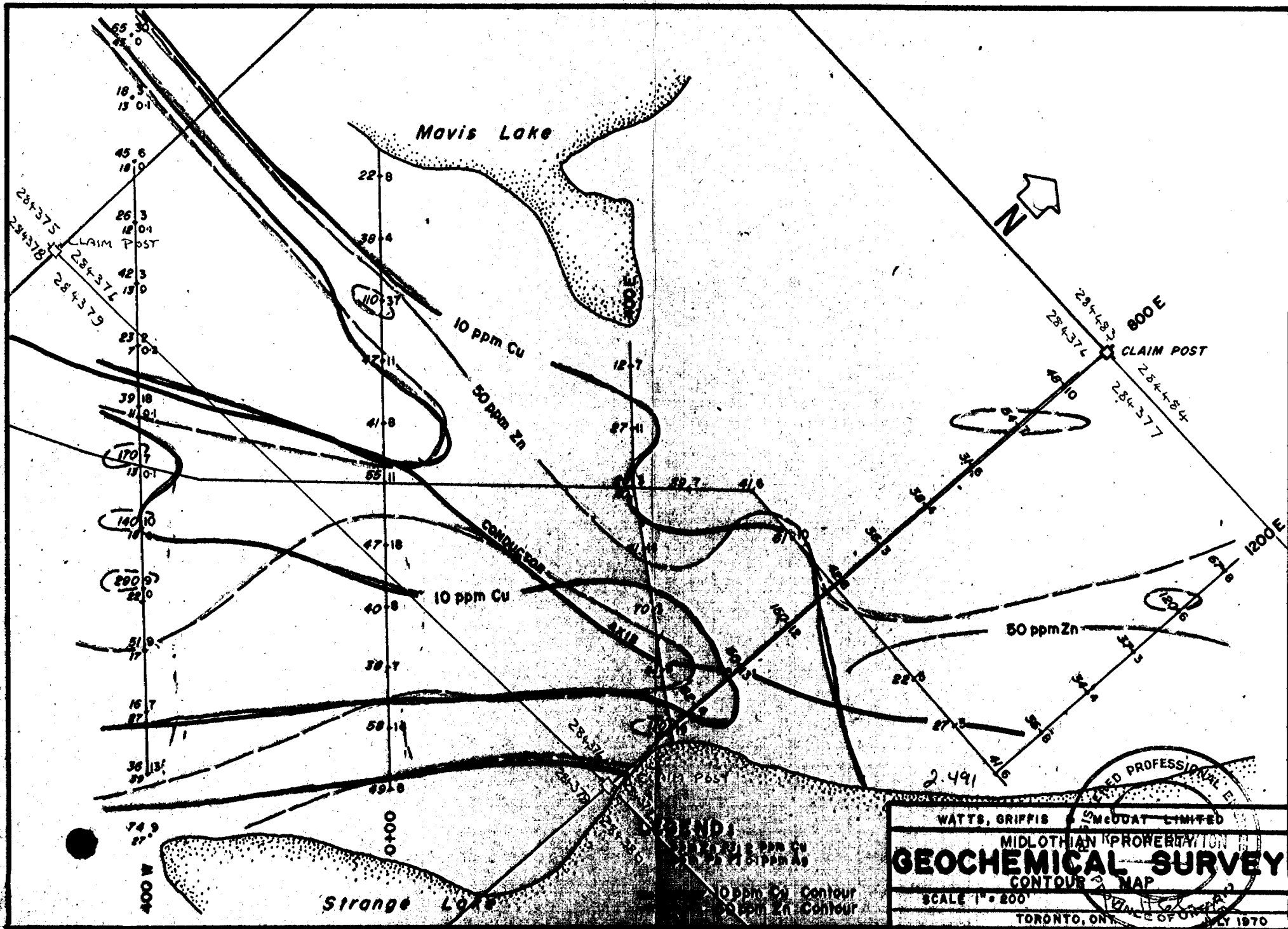
284375  
284376  
284378  
284379

**LEGEND:**  
 CONDUCTOR 1/4" = 20' (1" = 200' approx)  
 AXIS 1/4" = 20' (1" = 200' approx)

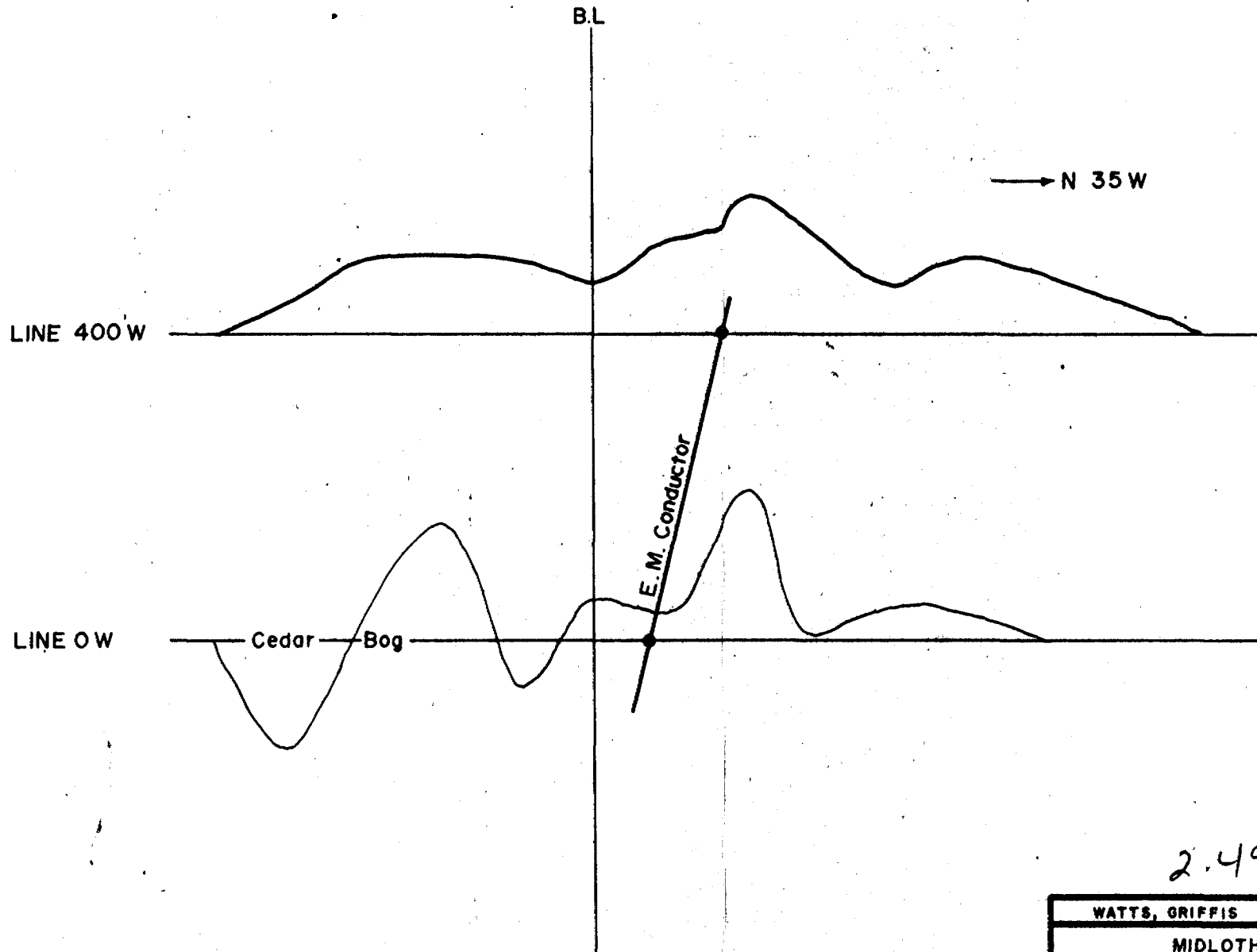
2.491

WATTS, GRIFFIS & McQUEST  
 MIDLOTHIAN PROPERTY  
**GEOCHEMICAL SURVEY**  
 PROFILES  
 SCALE 1" = 200'  
 TORONTO, ONT.

REGISTERED PROFESSIONAL ENGINEER  
 J. WATTS  
 July, 1958  
 TORONTO, ONT.

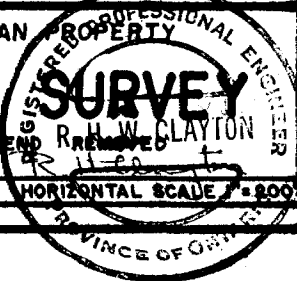


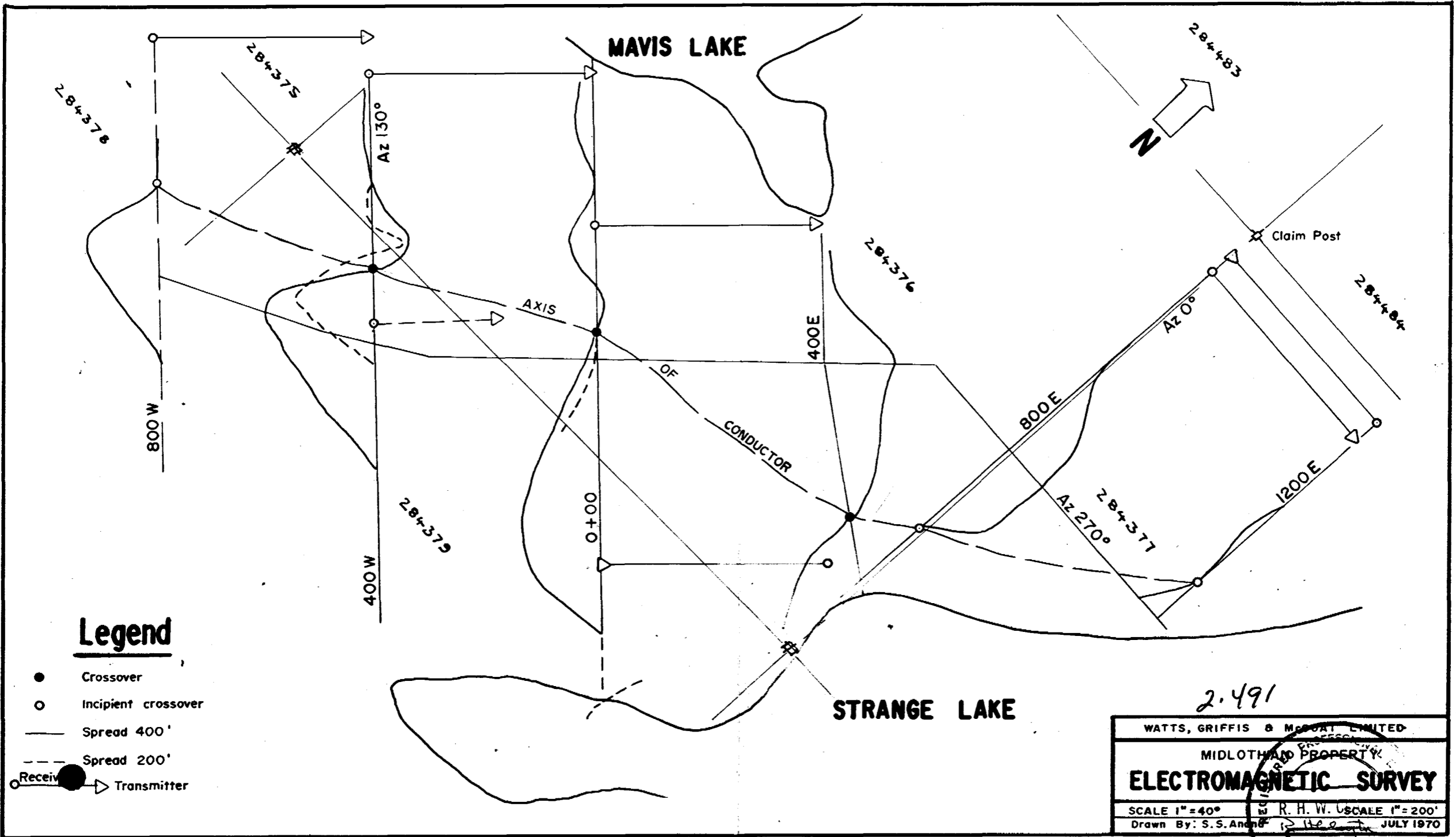




2.491

WATTS, GRIFFIS & McQUAT LIMITED	
MIDLOTHIAN	
<b>MAGNETIC SURVEY</b>	
REGIONAL TRENDS	REGISTERED PROFESSIONAL ENGINEER
H.W. CLAYTON	
SCALE 1" = 100 Gammas	HORIZONTAL SCALE 1" = 200'





**Legend**

- Crossover
- Incipient crossover
- Spread 400'
- - - Spread 200'
- Receiver
- ▶ Transmitter

2.491

WATTS, GRIFFIS & McEART LIMITED	
MIDLOTHIAN PROPERTY	
<b>ELECTROMAGNETIC SURVEY</b>	
SCALE 1" = 40'	SCALE 1" = 200'
Drawn By: S.S. Anand	

JULY 1970





ASSESSMENT WORK DETAILS

Township or Area MIDLOTHIAN (LARDER LAKE)

List numerically

Type of Survey GEOLOGICAL  
A separate form is required for each type of survey

Chief Line Cutter J. E. GEORGE  
or Contractor P.O. Box 11, MATACHEWAN ONT  
Name Address

Party Chief R. H. CLAYTON  
Name 45 DUNFIELD AVE, TORONTO  
Address

Consultant R. H. CLAYTON  
Name 45 DUNFIELD AVE, TORONTO  
Address

COVERING DATES

Line Cutting July 10-11, 1970 April 26-May 3 1971

Field July 13-15 1970, April 28-May 7, 1971  
Instrument work, geological mapping, sampling etc.

Office July 20 & 28 1970, June 20-22 1971  
(4 1/2 days)

INSTRUMENT DATA

Make, Model and Type \_\_\_\_\_

Scale Constant or Sensitivity \_\_\_\_\_  
Or provide copy of instrument data from Manufacturer's brochure.

Radiometric Background Count \_\_\_\_\_

Number of Stations Within Claim Group \_\_\_\_\_

Number of Readings Within Claim Group \_\_\_\_\_

Number of Miles of Line cut Within Claim Group 2.68

Number of Samples Collected Within Claim Group \_\_\_\_\_

CREDITS REQUESTED

20 DAYS per claim

40 DAYS per claim

Includes (Line cutting)

Geological Survey

Geophysical Survey

Show Check

Geochemical Survey

DATE June 18 1971

SIGNED R. H. Clayton

284498	
284376	
284377	
284485	
284379	
284380	
284484	
284488	
284489	
284490	
* See "Man-days breakdown."	
J	
TOTAL	<u>10</u>

If space insufficient, attach list

Send in duplicate to:  
FRED W. MATTHEWS  
SUPERVISOR-PROJECTS SECTION  
DEPARTMENT OF MINES &  
NORTHERN AFFAIRS  
WHITNEY BLOCK  
QUEEN'S PARK  
TORONTO, ONTARIO

SUBMISSION OF GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL SURVEYS  
AS ASSESSMENT WORK

In order to simplify the filing of geological, geochemical and ground geophysical surveys for assessment work, the Minister has approved the following procedure under Section 84 (8a) of the Ontario Mining Act. This special provision does not apply to airborne geophysical surveys.

If, in the opinion of the Minister, a ground geophysical survey meets the requirements prescribed for such a survey, including:

- (a) substantial and systematic coverage of each claim
- (b) line spacing not exceeding 400 foot intervals
- (c) stations not exceeding 100 foot intervals or
- (d) the average number of readings per claim not less than 40 readings

it will qualify for a credit of 40 assessment work days for each claim so covered. It will not be necessary for the applicant to furnish any data or breakdown concerning the persons employed in the survey except for the names and addresses of those in charge of the various phases (linecutting contractor, etc.). It will be assumed that the required number of man days were spent in producing the survey to qualify for the specified credit.

Each additional ground geophysical survey using the same grid system and otherwise meeting these requirements will qualify for an assessment work credit of 20 days.

A geological survey using the same grid system, and meeting the requirements for submission of geological surveys for maximum credits will qualify for an assessment work credit of 20 days. If line cutting has not previously been reported with any other survey and is reported in conjunction with the geological survey a credit of 40 days per claim will be allowed for the survey.

Similarly, a geochemical survey using the same grid system with the average number of collected samples per claim being not less than 40 samples, and meeting the requirements for the submission of geochemical surveys for maximum credits, will qualify for an assessment work credit of 20 days. If line cutting has not previously been reported with any other survey and is reported in conjunction with the geochemical survey a credit of 40 days per claim will be allowed for the survey.

Credits for partial coverage or for surveys not meeting requirements for full credit will be granted on a pro-rata basis.

If the credits are reduced for any reason, a fifteen day Notice of Intent will be issued. During this period, the applicant may apply to the Mining Commissioner for relief if his claims are jeopardized for lack of work or, if he wishes, may file with the Department, normal assessment work breakdowns listing the names of the employees and the dates of work. The survey would then be re-assessed to determine if higher credits may be allowed under the provisions of subsections 8 and 9 of section 84 of the Mining Act.

If new breakdowns are not submitted, the Performance and Coverage credits are confirmed to the Mining Recorder at the end of the fifteen days.

PERFORMANCE & COVERAGE CREDITS

ASSESSMENT WORK DETAILS

MINING CLAIMS TRAVERSED

Township or Area MIDDLETHIAN  
 Type of Survey GEOCHEMICAL  
A separate form is required for each type of survey  
 Chief Line Cutter \_\_\_\_\_  
 or Contractor \_\_\_\_\_  
Name  
 \_\_\_\_\_  
Address  
 Party Chief R. H. CLAYTON  
Name  
45 DUNFIELD AVE TORONTO  
Address  
 Consultant R. H. CLAYTON  
Name  
 \_\_\_\_\_  
Address

List numerically  
 $\frac{1}{3}$  not covered  
 $\frac{2}{3}$  284 376  
 $\frac{1}{3}$   
 $\frac{2}{3}$  284 377  
 $\frac{1}{2}$   
 284 379  
 Area of claims  
 not covered =  $1\frac{1}{4}$   
 $3 \times 20 = 60 \div (3+1)$   
 $= 15 \text{ days per claim}$   
 g  
 TOTAL 3

COVERING DATES

Line Cutting See geological survey  
 Field July 12, 1970  
Instrument work, geological mapping, sampling etc.  
 Office July 20-28, 1970

INSTRUMENT DATA

Make, Model and Type \_\_\_\_\_  
 Scale Constant or Sensitivity \_\_\_\_\_  
Or provide copy of instrument data from Manufacturer's brochure.  
 Radiometric Background Count \_\_\_\_\_  
 Number of Stations Within Claim Group 53  
 Number of Readings Within Claim Group \_\_\_\_\_  
 Number of Miles of Line cut Within Claim Group \_\_\_\_\_  
 Number of Samples Collected Within Claim Group 53  
(117 assays)

CREDITS REQUESTED	20 DAYS per claim	40 DAYS per claim	Includes (Line cutting)
Geological Survey	<input type="checkbox"/>	<input type="checkbox"/>	
Geophysical Survey	<input type="checkbox"/>	<input type="checkbox"/>	Show Check <input type="checkbox"/>
Geochemical Survey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

DATE June 18, 1971  
12 H. Beagle  
 SIGNED R. H. Clayton

Send in duplicate to:  
 FRED W. MATTHEWS  
 SUPERVISOR-PROJECTS SECTION  
 DEPARTMENT OF MINES &  
 NORTHERN AFFAIRS  
 WHITNEY BLOCK  
 QUEEN'S PARK  
 TORONTO, ONTARIO

Performance and coverage credits do not apply to airborne surveys

If space insufficient, Attach list

## SUBMISSION OF GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL SURVEYS

### AS ASSESSMENT WORK

In order to simplify the filing of geological, geochemical and ground geophysical surveys for assessment work, the Minister has approved the following procedure under Section 84 (8a) of the Ontario Mining Act. This special provision does not apply to airborne geophysical surveys.

If, in the opinion of the Minister, a ground geophysical survey meets the requirements prescribed for such a survey, including:

- (a) substantial and systematic coverage of each claim
- (b) line spacing not exceeding 400 foot intervals
- (c) stations not exceeding 100 foot intervals or
- (d) the average number of readings per claim not less than 40 readings

it will qualify for a credit of 40 assessment work days for each claim so covered. It will not be necessary for the applicant to furnish any data or breakdown concerning the persons employed in the survey except for the names and addresses of those in charge of the various phases (linecutting contractor, etc.). It will be assumed that the required number of man days were spent in producing the survey to qualify for the specified credit.

Each additional ground geophysical survey using the same grid system and otherwise meeting these requirements will qualify for an assessment work credit of 20 days.

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Credits for partial coverage or for surveys not meeting requirements for full credit will be granted on a pro-rata basis.

If the credits are reduced for any reason, a fifteen day Notice of Intent will be issued. During this period, the applicant may apply to the Mining Commissioner for relief if his claims are jeopardized for lack of work or, if he wishes, may file with the Department, normal assessment work breakdowns listing the names of the employees and the dates of work. The survey would then be re-assessed to determine if higher credits may be allowed under the provisions of subsections 8 and 9 of section 84 of the Mining Act.

If new breakdowns are not submitted, the Performance and Coverage credits are confirmed to the Mining Recorder at the end of the fifteen days.



SUBMISSION OF GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL SURVEYS  
AS ASSESSMENT WORK

In order to simplify the filing of geological, geochemical and ground geophysical surveys for assessment work, the Minister has approved the following procedure under Section 84 (8a) of the Ontario Mining Act. This special provision does not apply to airborne geophysical surveys.

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If new breakdowns are not submitted, the Performance and Coverage credits are confirmed to the Mining Recorder at the end of the fifteen days.



PERFORMANCE & COVERAGE CREDITS

ASSESSMENT WORK DETAILS

MINING CLAIMS TRAVERSED

List numerically

Township or Area MIDLOTHIAN

Type of Survey ELECTROMAGNETIC (CUT GRID)  
A separate form is required for each type of survey

Chief Line Cutter \_\_\_\_\_  
 or Contractor Name \_\_\_\_\_  
 Address \_\_\_\_\_

Party Chief R. H. CLAYTON  
 Name \_\_\_\_\_  
 Address 45 DUNFIELD AVE, TORONTO 7

Consultant R. H. CLAYTON  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_

COVERING DATES

Line Cutting See geological survey

Field April 16 - May 3, 1971  
Instrument work, geological mapping, sampling etc.

Office May 4 - June 8, 1971

INSTRUMENT DATA

Make, Model and Type McPhar V.H.E.M.  
VERTICAL / HORIZONTAL LOOP EM

Scale Constant or Sensitivity 600 & 2400 cps  
Or provide copy of instrument data from Manufacturer's brochure.

Radiometric Background Count \_\_\_\_\_

Number of Stations Within Claim Group 84

Number of Readings Within Claim Group Vert loop 63  
Hor loop 37 100

Number of Miles of Line cut Within Claim Group \_\_\_\_\_

Number of Samples Collected Within Claim Group \_\_\_\_\_

CREDITS REQUESTED

20 DAYS  
per claim

40 DAYS  
per claim

Includes  
(Line cutting)

Geological Survey

Geophysical Survey   Show

Geochemical Survey   Check

DATE June 18, 1971

SIGNED R. H. Clayton

284376

284379

284377

284484

\* See "Man-days breakdown" of

TOTAL 4

Send in duplicate to:  
 FRED W. MATTHEWS  
 SUPERVISOR-PROJECTS SECTION  
 DEPARTMENT OF MINES &  
 NORTHERN AFFAIRS  
 WHITNEY BLOCK  
 QUEEN'S PARK  
 TORONTO, ONTARIO

If space insufficient, attach list

## SUBMISSION OF GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL SURVEYS

### AS ASSESSMENT WORK

In order to simplify the filing of geological, geochemical and ground geophysical surveys for assessment work, the Minister has approved the following procedure under Section 84 (8a) of the Ontario Mining Act. This special provision does not apply to airborne geophysical surveys.

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- (c) stations not exceeding 100 foot intervals or
- (d) the average number of readings per claim not less than 40 readings

it will qualify for a credit of 40 assessment work days for each claim so covered. It will not be necessary for the applicant to furnish any data or breakdown concerning the persons employed in the survey except for the names and addresses of those in charge of the various phases (linecutting contractor, etc.). It will be assumed that the required number of man days were spent in producing the survey to qualify for the specified credit.

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If new breakdowns are not submitted, the Performance and Coverage credits are confirmed to the Mining Recorder at the end of the fifteen days.

PERFORMANCE & COVERAGE CREDITS

ASSESSMENT WORK DETAILS

MINING CLAIMS TRAVERSED

List numerically

Township or Area MIDLOTHIAN

Type of Survey ELECTROMAGNETIC (RECONNAISSANCE)  
A separate form is required for each type of survey

Chief Line Cutter \_\_\_\_\_  
 or Contractor \_\_\_\_\_  
Name

Address \_\_\_\_\_

Party Chief R. H. CLAYTON

Name

45 DUNFIELD AVE TORONTO  
Address

Consultant R. H. CLAYTON

Name

Address \_\_\_\_\_

COVERING DATES

Line Cutting See geological report

Field April 28 - May 7 1971  
Instrument work, geological mapping, sampling etc.

Office June 20-23 1971

INSTRUMENT DATA

Make, Model and Type Scintax S.E. 250

Scale Constant or Sensitivity 1000 cps  
Or provide copy of instrument data from Manufacturer's brochure.

Radiometric Background Count \_\_\_\_\_

Number of Stations Within Claim Group 86

Number of Readings Within Claim Group 86

Number of Miles of Line cut Within Claim Group None

Number of Samples Collected Within Claim Group \_\_\_\_\_

CREDITS REQUESTED

20 DAYS  
per claim

40 DAYS  
per claim

Includes  
(Line cutting)

Geological Survey

Geophysical Survey

Geochemical Survey

Show  
Check

DATE \_\_\_\_\_

SIGNED \_\_\_\_\_

284376

284377

284379

284380

284484

284485

284498

284489

*\* See "Man-days breakdown."*

*J*

TOTAL 8

If space insufficient, attach list

Send in duplicate to:  
 FRED W. MATTHEWS  
 SUPERVISOR-PROJECTS SECTION  
 DEPARTMENT OF MINES &  
 NORTHERN AFFAIRS  
 WHITNEY BLOCK  
 QUEEN'S PARK  
 TORONTO, ONTARIO

## SUBMISSION OF GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL SURVEYS

### AS ASSESSMENT WORK

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If new breakdowns are not submitted, the Performance and Coverage credits are confirmed to the Mining Recorder at the end of the fifteen days.



TECHNICAL ASSESSMENT WORK CREDITS

Recorder Holder Denison Mines Ltd.  
 Township or Area Midlothian Twp.

Type of Survey and number of  
Assessment Days Credits per claim

Mining Claims	
L. 284376 - 79	
284380	
284489	

GEOPHYSICAL

Electromagnetic .....days  
 Magnetometer .....4.....days  
 Radiometric .....days  
 Induced Polarization .....days

GEOLOGICAL.....days

GEOCHEMICAL.....days

Man days  Airborne   
 Special Provision  Ground

NOTICE OF INTENT TO BE ISSUED

- Credits have been reduced because of partial coverage of claims.
- Credits have been reduced because of corrections to work dates and figures of applicant.
- NO CREDITS have been allowed for the following mining claims as they were not sufficiently covered by the survey:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

*See revised statement  
Feb 14/73*

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40;



TECHNICAL ASSESSMENT WORK CREDITS

Recorder Holder Denison Mines Ltd.

Township or Area Midlothian Twp.

Type of Survey and number of Assessment Days Credits per claim

Mining Claims	
L. 284376 - 77	
284379 - 80	
284484 - 85	
284489	
284498	

**GEOPHYSICAL**

Electromagnetic .....<sup>9</sup>.....days  
 Magnetometer .....days  
 Radiometric .....days  
 Induced Polarization .....days  
 .....

**GEOLOGICAL**.....days

**GEOCHEMICAL**.....days

Man days  Airborne

Special Provision  Ground

NOTICE OF INTENT TO BE ISSUED

- Credits have been reduced because of partial coverage of claims.
- Credits have been reduced because of corrections to work dates and figures of applicant.
- NO CREDITS have been allowed for the following mining claims as they were not sufficiently covered by the survey:

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*see revised statement  
Feb 14/73*

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40;

MONTROSE TWP. (M.237)

THE TOWNSHIP OF

MIDLOTHIAN

Claim map  
DISTRICT OF  
TIMISKAMING

LARDER LAKE  
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND Ⓟ
- CROWN LAND SALE C.S.
- LEASES Ⓛ
- LOCATED LAND L.C.
- 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

NOTES

400' surface rights reservation around all lakes and rivers.

DATE OF ISSUE

JUL - 8-1971

ONT. DEPT. OF MINES  
AND NORTHERN AFFAIRS

*1 = May*  
*1 = E.M.*  
*1 = Geochemical*  
*1 = Geological*

PLAN NO. M.235

ONTARIO  
DEPARTMENT OF MINES  
AND NORTHERN AFFAIRS

HALLIDAY TWP. (M.910)

DOON TWP. (M.217)

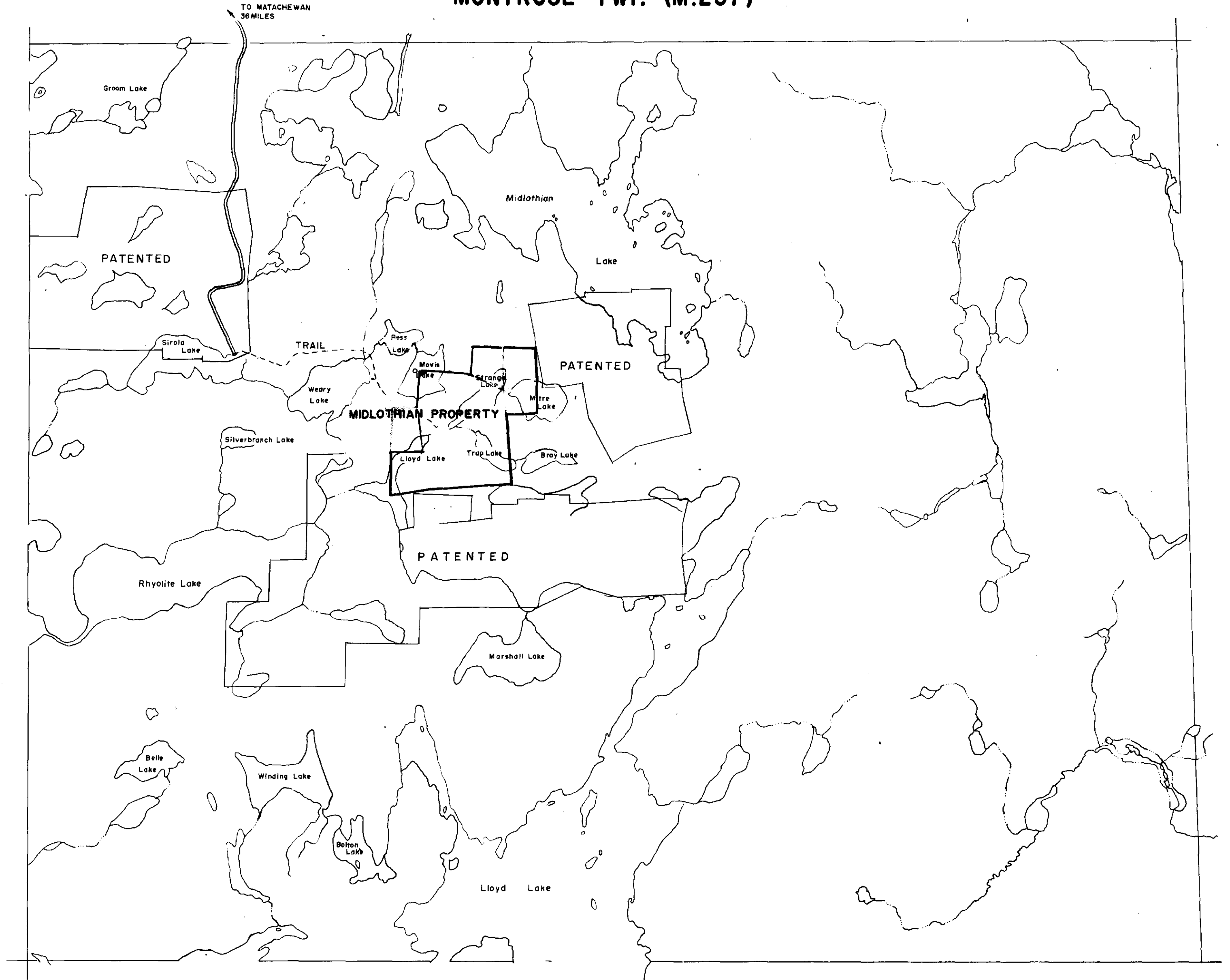
RAYMOND TWP. (M.244)



MONTROSE TWP. (M.237)

HALLIDAY TWP. (M.910)

DOON TWP. (M.217)



RAYMOND TWP. (M.244)

WATTS, GRIFFIS AND M'QUAT LIMITED

**MIDLOTHIAN PROPERTY  
LOCATION MAP**

Scale 1" = 1/2 mile  
Drawn By: S.S. Anand





Bess Lake

Mavis Lake

Strange Lake

Mitre Lake

Trap Lake

Bray Lake

LEGEND

- 1c Rhyolite
- 3a Peridotite etc.
- 3b Rhyolite Breccia
- 3c Serpentine
- Gabbro Diabase
- ⊕ Claim Post (unsurveyed)
- ⊕ Witness Post (unsurveyed)
- All grid lines traversed (new and old)
- Other traverses

MIDLOTHIAN PROPERTY  
 DETAILED GEOLOGY  
 SURVEY GRID & CLAIMS

Scale 1" = 200'  
 Drawn By: S.S. Anand

284481

284482

284483

284484

284485

284486

284375

284376

284377

284498

284497

284378

284379

284380

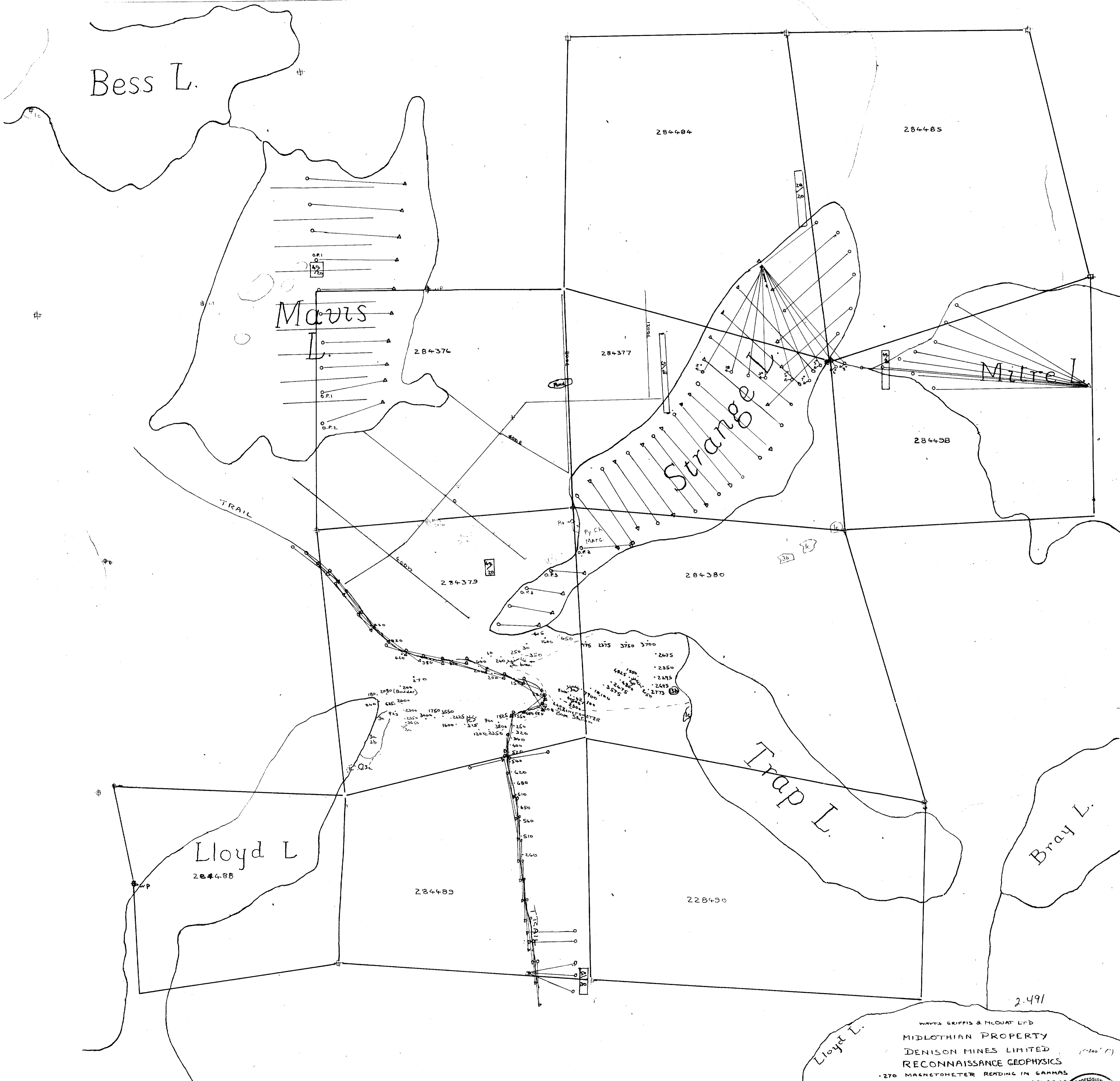
284488

284488

284489

228490





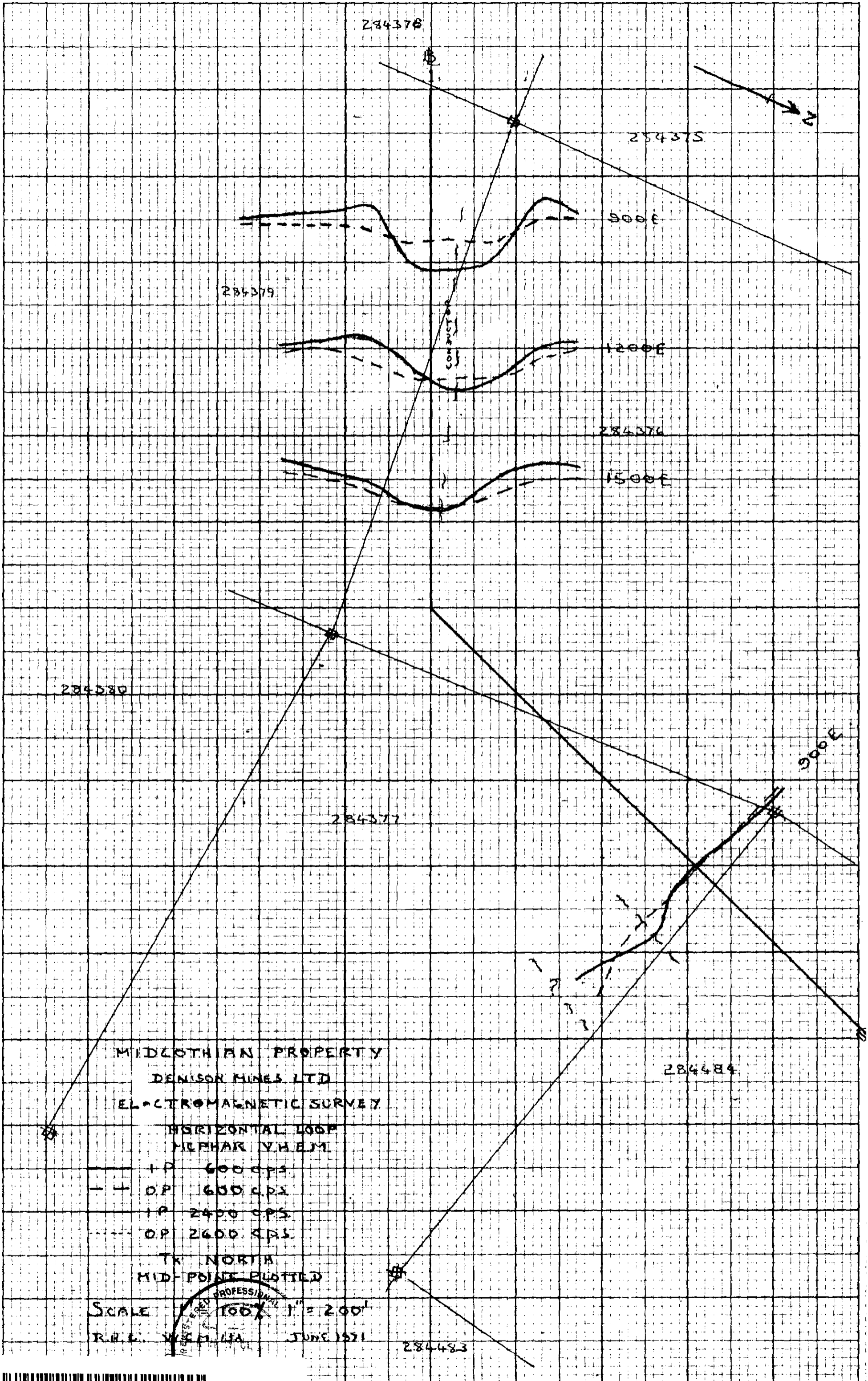
230

WATTS GRIFFIS & MCGUAT LTD  
 MIDLOTHIAN PROPERTY  
 DENISON MINES LIMITED  
 RECONNAISSANCE GEOPHYSICS

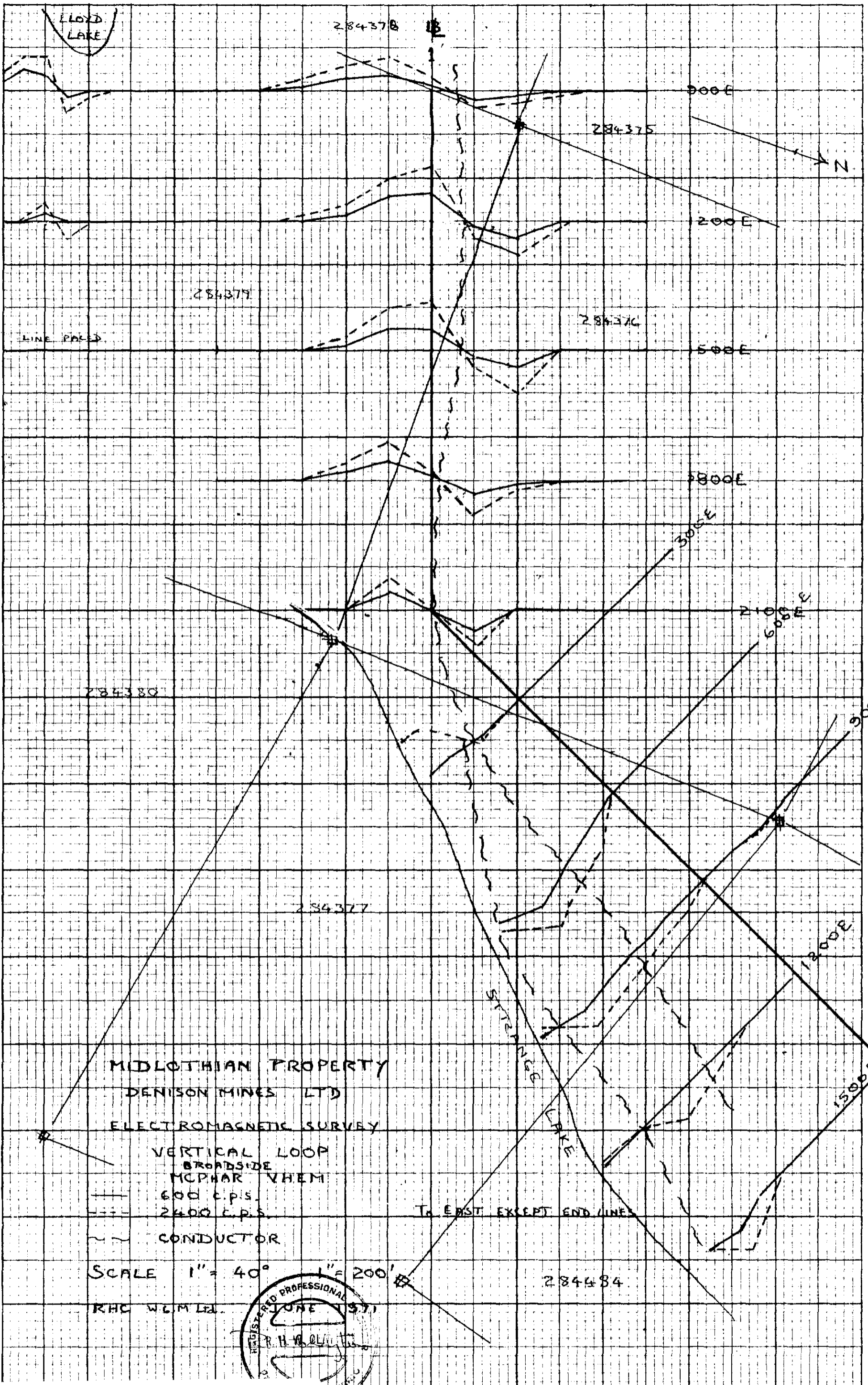
-270 MAGNETOMETER READING IN GAMMAS  
 A TRANSMITTER STATION SHARPE S.E.25  
 O RECEIVER STATION, ZERO DIP-ANGLE  
 O 75° RECEIVER STATION, DIP AND DIRECTION  
 O.P.1 to O.P.3 WEAK TO MODERATELY STRONG  
 FROM ASSESSMENT FILES 1c Rhythmic  
 PPM. I.P. / PPM. O.P. 3c Periodic  
 3b Serpentine

200 (1)





HUGHES OWENS INC. 829 10 10



MIDLOTHIAN PROPERTY  
 DENISON MINES LTD  
 ELECTROMAGNETIC SURVEY

VERTICAL LOOP  
 BROADSIDE  
 MCPHAR VHEM  
 --- 600 C.P.S.  
 - - - 2400 C.P.S.  
 ~ ~ ~ CONDUCTOR

To EAST EXCEPT END LINES

SCALE 1" = 40' 1" = 200'

RHC W.C.M. L.L.

