

### REPORT FOR

# MATTAGAMI LAKE MINES LIMITED

Covering MAGNETIC and ELECTROMAGNETIC

surveys over their

"F" CLAIM GROUP

Sturgeon Lake Area Patricia Mining Division, Ontario.

March, 1970.

İш. ри Соф. Сатарала, Дабар

2.42

Report for Mattagami Lake Mines Limited covering MAGNETIC and ELECTROMAGNETIC surveys over their GROUP "F" claims, Sturgeon Lake Area, Patricia Mining Division, Ontario.

#### LOCATION AND ACCESS:

This group of 40 contiguous claims numbered 205367 to 205368; 212710 to 212717; and 225631 to 225660 inclusive are located adjacent to the north-west boundary of Abitibi Pulp and Paper blocks #7. Access is via road from Highway # 599 or via Sturgeon Laks.

#### PREVIOUS WORK:

The GSC sirborne magnetic maps 1117 G and 1127 G flown at 1000<sup>7</sup> show a strong magnetic high in Sturgeon L. ke centered approximately 3/4 of a mile north of the claim group. There is no significant magnetic feature on the claim group itself. The ODM geological map#2169 shows the area as being underlain by Felsic Metavolcanic rocks. The area was flown by Questor for Mattagami Lake Mines with a weak conductor being detected on three flight lines. This anomaly is located in the lake on claim 212713.

#### EQUIPMENT USED:

<u>Magnetic</u> A. McPhar fluxgate magnetometer M = 700 was used measuring the vertical component of the magnetic field directly in gammas. Accuracy of the instrument is  $\pm 10$  gammas. Normal procedures using base stations and applying drift corrections were carried out.

Electromagnetic. A Crone Shoot back JEM unit was used with coil separation of 300' and a basic operating frequency of 1800 Hz. with readings also being taken at 480 Hz in anomalous areas. The "resultant dip angle" in degrees is recorded using the mid point between the two operators.

AUTOF. STOKED SER.

The CRONE RADEM - VLF - EM unit was also used over the entire grid taking both "Dip Angle" and "Field Strength" measurements. Transmitting station used was primarily Seattle Washington 18.6 KHz and in some cases Cutler Maine 17.8 KHz. Instrument brochure attached.

#### LINECUTTING:

A base line was established with an azimuth of 75° and a grid cut and picketed with a 400' line interval over the entire claim group. Line cutting was performed by Mattagami Lake mines own crows under the direction of Robert Major, Box 190, Ignace, Ontario. Total mileage was 29.3 lines, and 3.2 baseline.

#### GEOPHYSICAL OPERATORS:

The field work was carried out by Mattagami Lake Mines crows under the party chief Robert Major, Box 190, IGNACE, Ontario.

#### INTERPRETATION:

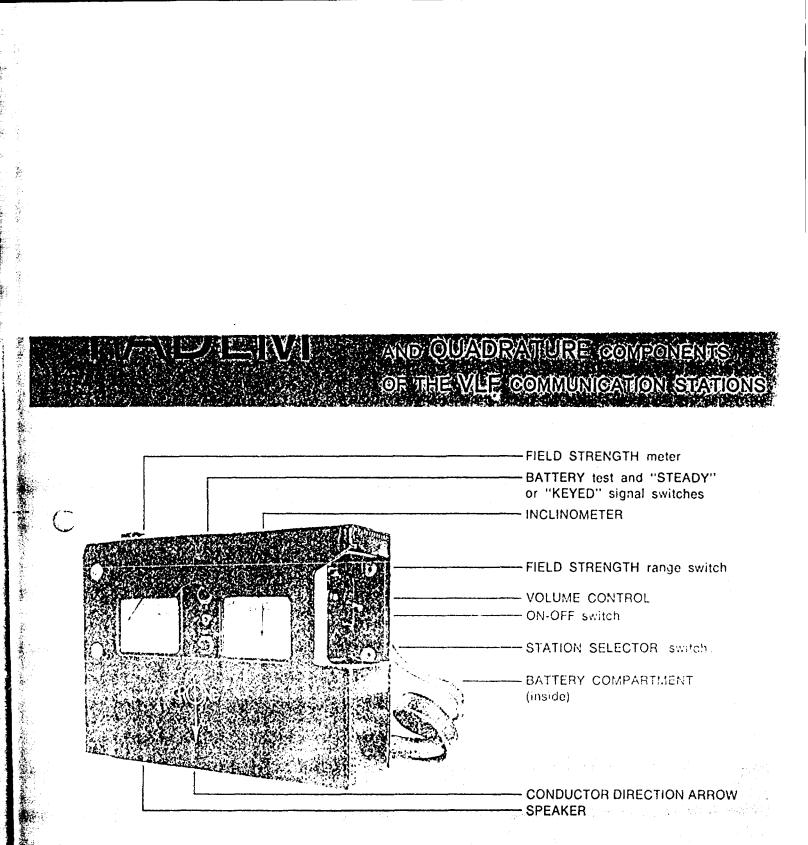
The Crone Shoot back JEM survey at 300° coil separation detected two weak conductors. "F-1" located along the shore of the lake between lines 36W and 52W. This conductor occurs underneath 50° to 75° of overburden and dips between 45° and 60° to the north. This anomaly was also detected by the RADEM survey particularly on line 36 N. Two drill holes have been spotted to test this conductor "#F-2" at L 51 W, 126 + 00 N drilling true south at - 55° for 600° and "#F-3" at 119 + 50 N, line 35 + 50 W drilling true south at 55° 600°. This anomaly is located on the island at approximately 149 + 00 N, line 76W and is similar in dip and conductivity to conductor F-1. This conductor was not detected by the RADEM survey perhape due to clay overburden. Vertical loop detail is required prior to spotting a drill hole.

A well defined RADEM anomaly occurs between L 52 W and L 76 W at 109 + 00 N. A drill hole is recommended to test this conductor collared on L 68 W, 110 + 50 N and drilling grid south at  $45^{\circ}$  for 500'.

There is no clear cut magnetic correlation with any of the conductors although conductors F-1 and F-2 have nearly flanking magnetic highs in the order of 400 to 1200 gemmas.

Respectfully submitted

J. DUNCAN CRONE B.A. P. Eng. geophysicist.



This is a rugged, simple to operate, ONE MAN EM unit. It can be used without line cutting and is thus ideally suited for GROUND LOCATION OF AIRBORNE CONDUCTORS and the CHECKING OUT OF MINERAL SHOWINGS. This instrument utilizes higher than normal EM frequencies and is capable of detecting DISSEMINATED SULPHIDE DEPOSITS and SMALL SULPHIDE BODIES. It accurately isolates BANDED CONDUCTORS and operates through areas of HIGH HYDRO NOISE. The method is capable of deep (

The DIP ANGLE measurement detects a conductor from a considerable distance and is used primarily for locating conductors. The FIELD STRENGTH measurement is used to define the shape and attitude of the conductor.

# SPECIFICATIONS

Source of Primary Field:

VLF Communication Stations 12 to 24 KHz

Number of Stations:

7 switch selectable

Stations Available: The seven standard stations are Cutler, Maine, 17.8; Seattle, Washington, 18.6; Collins, Colorado, 20.0; Annapolis, Md., 21.4; Panama, 24.0; Hawaii, 23.4; England, 16.0. Alternative stations which may be substituted are: Gorki, Russia, 17.1; Japan, 17.4; England, 19.6; Australia, NWC, 22.3 KHz.

Check that Station is Transmitting: Audible signal from speaker.

#### Parameters Measured and Means:

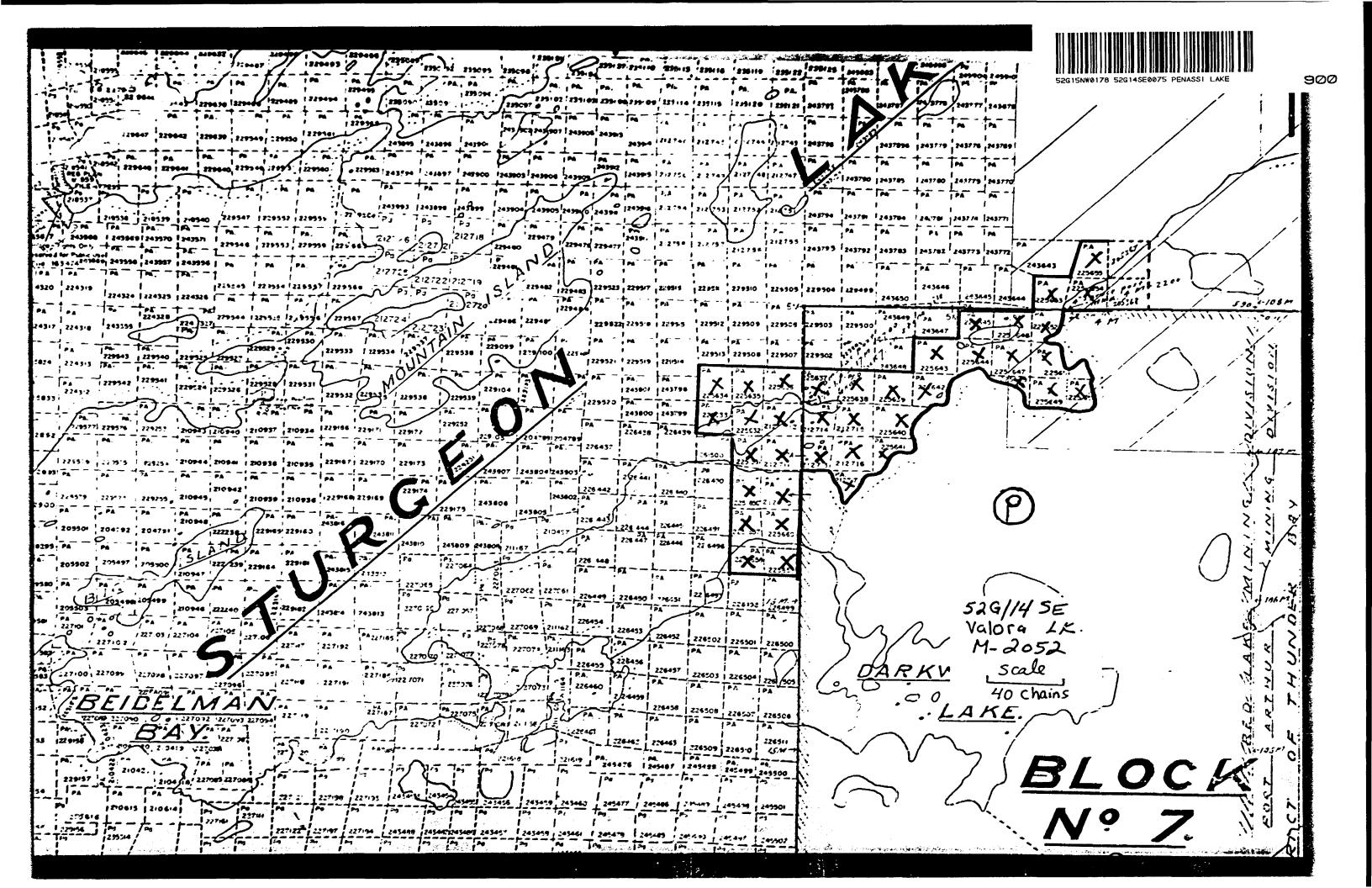
(1) DIP ANGLE in degrees, from the horizontal of the magnetic component of the VLF field. Detected by minimum on the field strength meter and read from an inclinometer with a range of  $\pm 80^{\circ}$  and an accuracy of  $\pm 1/2^{\circ}$ .

(2) Field Strength (total or horizontal component) of the magnetic component of the VLF field. Measured as a per cent of normal field strength established at a base station. Accuracy  $\pm 2\%$  dependent on signal. Meter has two ranges: 0 - 300% and 0 - 600%. Switch for "keyed" or "F.S." (steady) signal.

(3) Out of Phase component of the magnetic field, perpendicular in direction to the resultant field, measured without sign, as a per cent of normal field strength. This is the minimum reading of the Field Strength meter obtained when measuring the dip angle. Accuracy  $\pm 2\%$ .

Operating Temperature Range: $-20^{\circ}$  to  $+110^{\circ}$  F.Dimensions and Weight: $3.5'' \times 7.5'' \times 10.5'' - 6$  lb.Shipping:Foam lined wooden case - shipping wt. - 15 lb.Batteries:2 of 9 volt: Evercady 216, Burgess 2U6, Mallory M-1604<br/>Average life expectancy - 3 weeks to 3 months dependent on amount<br/>of usage.

Units Available on a Rental or Purchase Basis. Contract Services Available for Field Surveys.



# SPECIAL PROVISION

)

il in

「「「「「「「「」」」

in An an

ころうである いいないできた いちまたのないない ないないをする いうちょう

# ASSESSMENT WORK DETAILS

	2	separate form is required for each ty	·, ·	
Chief Line Cutter or	Contractor_MATTAGAM	LAKE MINES CRE	Address	
Party Chief ROBE	RT MAJOR, BOX 190		· · · · · · · · · · · · · · · · · · ·	
•.	Nom	20	Address . E. PORT CREDIT	
Gonsultant	NCAN CRONE, 979 L	-	E. PORT CREDIT	<u>UNIARI</u>
COVERING DATES	Line Cutting			
	Field Geology or Geophysic	CB <u></u>		
	Office			
· –	Office			
· •				
INSTRUMENT DATA	Make, Model and Type <u>Mc</u>	: Phar - M - 100 FL	JAGATE	
•		ty ± 10 GAMMA		·.
	Or provide copy of instrume	ent data from Manufacturer's	brochure.	
Total Number of Stati	ions Within Claim Group <u>15</u>	90 Number of Miles of I	ine cut Within Claim Grou	32.5
				•
		0 1	D 011	•
ASSESSMENT WORK	CREDITS REQUESTED	Geological Survey	Days per Claim	. •
		Geophysical Survey	10 Days per Claim	
MINING CLAIMS TR	AVERSED		•	
205367, 2053	68, 212710, 212711, 21	2712. 212713. 212714.	212715, 212716, 212	717:
220031, 22003	32, 225633, 225634, 2	225055, 225050, 2250	51, 225038, 225039	, 225040,
225641, 22564	42, 225643, 225644, 2	225645, 225646, 2256	47, 225648, 225649	, 225650,
·····	52, 225653, 225654, 2		E7 775660 775660	
		<i></i>	51, 663030, 663039	, 225000.
		223033, 223050, 2230	57, 223038, 223039	, 225060.
			57, 223030, 223037	, 225660.
		TOTAL	40	, 225660.
225651, 22565				, 225660.
				, 22566U.
225651, 22565		TOTAL		, 22566U.
225651, 22565	, 1970	TOTAL	40 Duncan	<u>, 225660</u> .
225651, 22565	, 1970	TOTAL SIGNED	40 Duncan	. 225660.

#### SPECIAL PROVISION

# ASSESSMENT WORK DETAILS

.

A the state of the

1994

いたなない

「ないとうにものに、ない

大学のない

Type of Survey_ELLE		URVEY	······································
	A separate f	orm is required for e AKE MINES	
	. Nome		Address
Party Chief ROBE	Nome		Address
Consultant J. DUN		HORE ROAL	D, E., PORT CREDIT, ONTARIO.
COVERING DATES	Name Line Cutting		Address
<ul> <li>A second sec second second sec</li></ul>	Field Geology or Geophysics	····	
	Office		
· · · · ·			
INSTRUMENT DATA	Make, Model and Type CRONE S	HOOT BAC	K JEM 480-1800, RADEM VLF-EN
	Scale Constant or Sensitivity	· ± 1°	
	Or provide copy of instrument data	from Manufacture	er's brochure.
RADEM - 1436, 5	SHOOT BACK JEM - 1424	· · · · · · · · · · · · · · · · · · ·	of Line cut Within Claim Group <u>32.5</u>
			y_20_ Days per Claim
MINING CLAIMS TRA	AVERSED		and a second
		212713, 2127	14, 212715, 212716, 212717;
PA 225631, 2256	32, 225633, 225634, 22563	35, 225636,	225637, 225638, 225639, 225640,
2 <u>25641, 225642,</u>	225643, 225644, 225645,	225646, 225	647, 225648, 225649, 225650,
2 <u>25651, 225652,</u>	225653, 225654, 225655,	225656, 225	<u>657, 225658, 225659, 225660.</u>
····		TOTAL	40
DATE April 20	0, 1970	SIGNED	J.Duncan Cam
	Special provision credits do not	apply to Radiome	tric Surveys.
		•	

## THE MINING ACT

**Assessment Work Credits** 

DEPARTMENT OF MINES PROJECTS SECTION

FILE: 174/0

DATE:....

Name\_\_\_\_Mattagami Lake Mines Limited,

Township or Area: Southwest Part of Sturgeon Lake Area.

Type of Survey and Number of Assessment Days Credits per Claim	Mining Claims
GEOPHYSICAL          X       Special Provision       Man days         X       Ground       Airborne         Magnetometer       40       days         Electromagnetic       (VLF)       18       days         (JEM)       18       days	PA 205367 to 68 incl. 212710 to 17 incl. 225631 to 60 incl. Note: Mining Claims PA 212713 to 17 incl. 225637 to 52 incl. are situated on patented land. The total geophysical credits of 1596 day for these claims only may be
GEOLOGICALdays	transferred to another group that has been geophysically surveyed and is held by the same licensee.
RADIOMETRICdays	
GEOCHEMICALdays	
Notice of Intent to be issued (credits have been reduced because of insuf- ficient or partial coverage of claims)	
No assessment credits have been allowed for the fellowing mining claims as they were not sufficiently covered by the survey	

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; Radiometric - 20;

TI	IE MINING ACT
DEPARTMENT OF MINES ASSE	ssment Work Credits FILE: <u>17476</u>
PROJECTS SECTION	DATE:
Name	ted,
Township or Area. Southwest Part	of Sturgeon Lake Area.
Type of Survey and Number of Assessment Days Credits per Claim	Mining Claims
GEOPHYSICAL X Special Provision Man d	PA 205367 to 68 incl.
	212710 to 17 incl.
X Ground Airbo	
Magnetometer 40 d	Note: Mining Claims
Electromagnetic (VLF) 18 d	PA 212713 to 17 incl. 225637 to 52 incl. are
(JEM) 18 d	
	for these claims only may be transferred to another group that
GEOLOGICALd	has been geophysically surveyed a
Special Provision Man d	ays is held by the same licensee.
RADIOMETRICd	ays
Ground Airbo	rne l
GEOCHEMICALd	ys
Notice of Intent to be issued (credit: have been reduced because of insuf	
ficient or partial coverage of claims)	2.2
No assessment credits have been	
allowed for the following mining claims	11
as they were not sufficiently covered by the survey	
••••••••••••••••••••••••••••••••••••••	
••••••••••••••••••••••••••••••••••••••	

The Mining Recorder may reduce the above credits if necessary in order that the total number approved assessment days recorded on each claim does not exceed the maximum allowed as

nones da c Ingelij

Да, С

• •

### THE MINING ACT

DEPARTMENT OF MINES

Ť

and a state of the

5

いろい、学どうなを書

Assessment Work Credits

F	1	1.	F	•	17								
	•			•	 ****	 	٠	 ٠	••	••	• •	**	

DATE:....

.

Name <u>Hattagami</u>	Lake Mines I	Limiled	<u>.</u>
-----------------------	--------------	---------	----------

Township or Area: Southwest Part of Sturgeon Lake Area.

Type of Survey and Number of Assessment Days Credits per Claim	Mining Claims
GEOPHYSICAL X Special Provision Man days X Ground Airborne Magnetometer 40 days Electromagnetic (VLF) 18 days (JEM) 18 days	PA 205367 to 68 incl. 212710 to 17 incl. 225631 to 60 incl. Note: Mining Claims PA 212713 to 17 incl. 225637 to 52 incl. are situated on patented land. The total geophysical credits of 1596 day
GEOLOGICALdays Special Provision Man days RADIOMETRICdays Ground Airborne	for these claims only may be transferred to another group that has been geophysically surveyed and is held by the same licensee.
GEOCHEMICALdays	
Notice of Intent to be issued (credits have been reduced because of insuf- ficient or partial coverage of claims)	
No assessment credits have been allowed for the following mining claims as they were not sufficiently covered by the survey	

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

	ARTMENT OF MINES	Assessment V	York Credits	FILE: <u>174</u>	<u>/c</u>
	PROJECTS SECTION			DATE:	******
Name	<u>Nattagami Lake Mines</u>	Limited,		•••••••••••	•
Town	ship or Arca: Southwest Pa	art of Stur	geon Lake Are	2a.	······
		<u>-</u>			
	Type of Survey and Number of Assessment Days Credits per Cla	1im		Mining Claims	
GEOI	PHYSICAL		<u> </u>		
X	Special Provision	Man days		57 to 68 incl. 10 to 17 incl.	
X	Ground	Airborne		31 to 60 incl.	
	Magnetometer 4(	0 days	<b>.</b>		
	Electromagnetic (VLF) 16	8 days		ning Claims 212713 to 17 i	
1	(JEM)			225637 to 52 i on patented la	nd. The
,			for these	ophysical credi e claims only m	ay be
GEOI	.OGICAL	days	has been	red to another ; geophysically	surveyed and
	Special Provision	Man days	is held h	by the same lic	ensee.
R ADI	OMETRIC	days			
	•	Airborne			
السنسا محمد المحمد					
GEOG	CHEMICAL	days			
	Notice of Intent to be issued (c have been reduced because of	•			•
	ficient or partial coverage of cl	aims)			
П	No assessment credits have l				
6	allowed for the following mining as they were not sufficiently co	1			
	by the survey				
	•••••		•		
		·····			
			necessary in ora		

「日本が後期」のようなないなどのないであった。それでは、「今天であった」のないないで、「それない」のないないない。「「「「」」」のないないでは、「」」」のないないで、「」」」のないで、「」」」」」のない

اليونية والمحمد المراجع المحمد المحمد الم

¥

		ARTMENT OF MINES	Assessment	Work Credits	FILE: 170/0
Southwest Part of Sturgeon Lake Area.         Type of Survey and Number of Assessment Days Credits per Claim         GEOPHYSICAL       Mining Claims         Ø GEOPHYSICAL       Andays         Ø Gound       Airborne         Magnetometer       40         Bell Definition       18         GEOLOGICAL       40         Ground       Airborne         GEOCHEMICAL       40      <		PROJECTS SECTION	• 1		DATE:
Type of Survey and Number of Assessment Days Credits per Claim       Mining Claims         GEOPHIVSICAL       Man days       PA 205367 to 68 incl. 212710 to 17 incl. 225631 to 60 incl.         X Ground       Airborne       225631 to 60 incl.         Magnetometer       40       days         Electromagnetic (VLF)       18       days         GEOLOGICAL	Name	Nattanami Lak	n Mines Limitod,	•••••••	
Assessment Days Credits per Claim       Mining Claims         GEOPHIYSICAL       Image: Special Provision       Image: Spe	Towr	nship or Arca: Sout	west Part of Stu	rgeon Lake Are	<u>a.</u>
Assessment Days Credits per Claim       Mining Claims         GEOPHIYSICAL       Image: Special Provision       Image: Spe	<u></u>				
Y       Special Provision       Man days         Y       Ground       Airborne         Magnetometer       40       days         Electromagnetic       (VLF)       18					Mining Claims
Image: State of the set	GEO	PHYSICAL			
K       Otomat       Intensite         Magnetometer       40       days         Electromagnetic (VLF)       18       days         (JEM)       18       days         GEOLOGICAL	X	Special Provision	Man days		
Electromagnetic (VLF)       18 days         (JEM)       18 days         GEOLOGICAL	X	Ground	Airborne	22563	1 to 60 incl.
225637 to 52 incl. are         (JEH)       18 days         GEOLOGICAL		Magnetometer	40 days		
GEOLOGICAL		Electromagnetic (VL	F) <u>18</u> days		225537 to 52 incl. are
GEOLOGICAL		(JEM)	<u>18</u> days	total geo	physical credits of 1596
Special Provision       Man days         Is held by the same licensee.         RADIOMETRIC       days         Ground       Airborne         GEOCHEMICAL       days         Notice of Intent to be issued (credits have been reduced because of insufficient or partial coverage of claims)         No assessment credits have been allowed for the following mining claims as they were not sufficiently covered	GEO	LOGICAL	days	transferr	ed to another group that
Ground       Airborne         GEOCHEMICAL		Special Provision	Man days		
Ground       Aitborne         GEOCHEMICAL	RAD	IOMETRIC	days		
<ul> <li>Notice of Intent to be issued (credits have been reduced because of insufficient or partial coverage of claims)</li> <li>No assessment credits have been allowed for the following mining claims as they were not sufficiently covered</li> </ul>		Ground			
<ul> <li>have been reduced because of insufficient or partial coverage of claims)</li> <li>No assessment credits have been allowed for the following mining claims as they were not sufficiently covered</li> </ul>	GEO	CHEMICAL	days		
allowed for the following mining claims as they were not sufficiently covered		have been reduced be	cause of insul-		
······		allowed for the followi as they were not suffi	ng mining claims ciently covered		
		••••••			

		THE MIN	ING ACT	
DEF	ARTMENT OF MINES	Assessment	Work Credits	FILE: <u>174/C</u>
	PROJECTS SECTION	. ·		DATE:
Nam	e <u></u>	Mines Limited,		·
				<u>ั</u> ล.
100		······		
	Type of Survey and Nu Assessment Days Credits			Mining Claims
C.F.C	DPHYSICAL			
	Special Provision	Man days	PA 20536	7 to 68 incl.
			21271	0 to 17 incl. 1 to 60 incl.
	Ground	Airborne	.2500	1 to to mer.
	Magnetometer	40days		ing Claims
	Electromagnetic (VLF)	) <u>18</u> days		212713 to 17 incl. 225637 to 52 incl. are
•	(JEM)	18 days		on patented land. The physical credits of 1596 day
			for these	claims only may be ed to another group that
GEC	DLOGICAL	days	has been	geophysically surveyed and y the same licensee.
	Special Provision	Man days		
RAD	DIOMETRIC	days		
	Ground	Airborne		
·	• 			
GEC	CHEMICAL	days		
	·			
	Notice of Intent to be i have been reduced bec	•		
	ficient or partial cover	age of claims)		
·	No assessment credits	s have been		
L_J	allowed for the following as they were not suffic	g mining claims		
• •	by the survey		,	
-	,			
		v .		

· . . .

2 • • 3mum allen 11 .... 

520/14 3E

AREA CODE --- 418 TELEPHONE --- 865-6918

「ないない」



WHITNEY BLOCK. OUEEN'S PARK, TORONTO 182, ONT , B E

DEPARTMENT OF MINES AND NORTHERN AFFAIRS MINING LANDS BPANCH 2.42

Mr. W. A. Buchan, Mining Recorder, Court House, Sicux Lookout, Ontario.

Dear Sir:

#### Re: Mining Claim No. PA 205387 et al, S.W. Part of Sturgeon Lake Area.

The Geophysical assessment work credits as shown on the attached list have been approved as of the date above. Please inform the recorded holder and so indicate on your records.

Yours very truly,

Property Promotion

Fred W. Hatthews, Supervisor, Projects Section.

/dg.

c.c. Mattagami Lake Mines Ltd., 205 - \$ King St., E., Toronto, Ontario.

, t

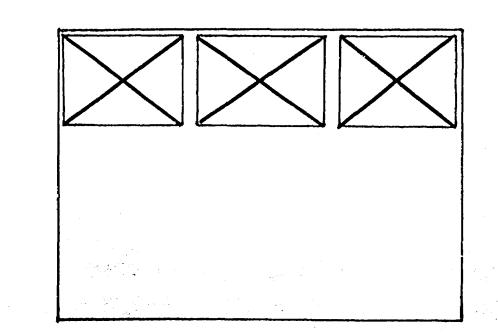
Attn.: Mr. J.W. Harvey.

c.c. H.L. King, Resident Geologist, 808 Robertson St., Kenora, Ont.

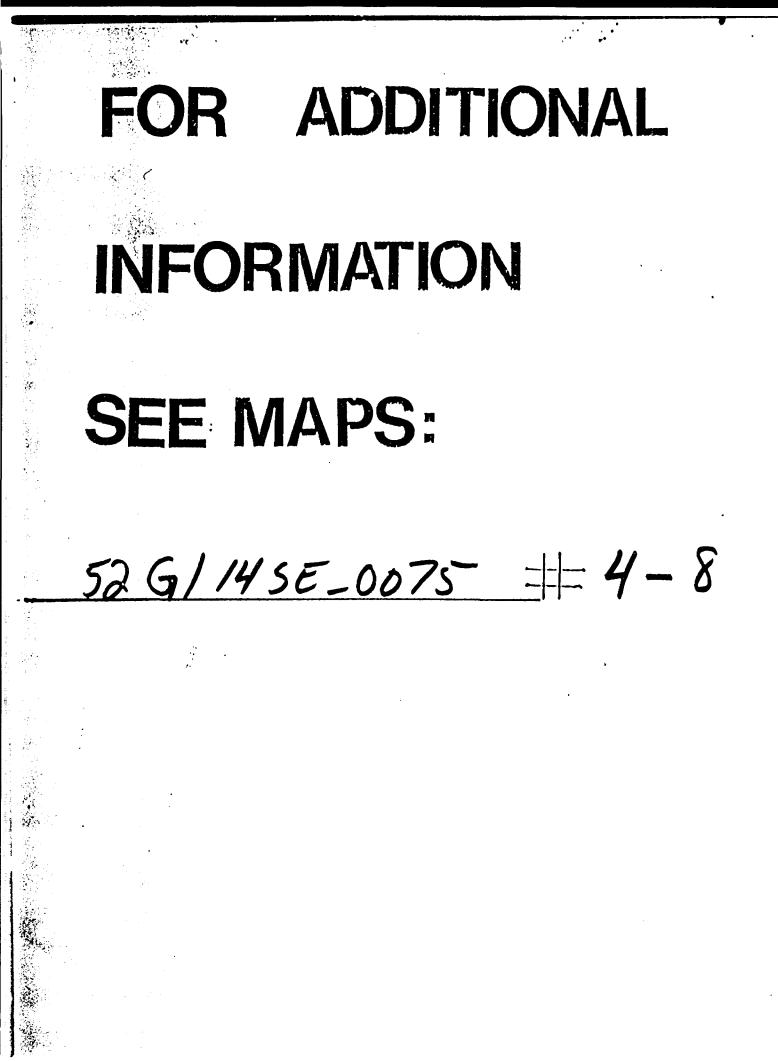
# SEE ACCOMPANYING MAP(S) IDENTIFIED AS

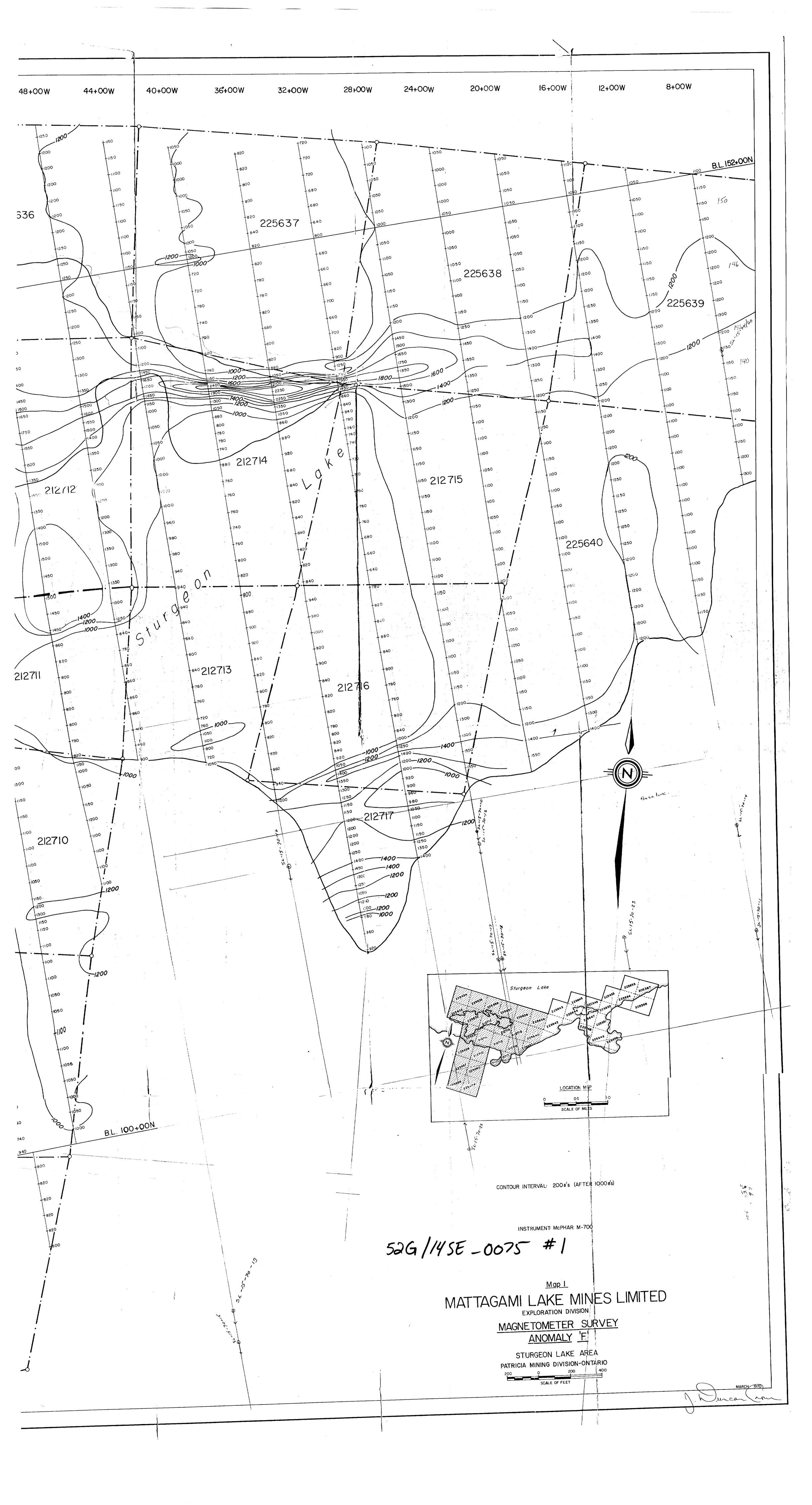
# 52G/145E-0075#1-3

# LOCATED IN THE MAP CHANNEL IN THE FOLLOWING SEQUENCE

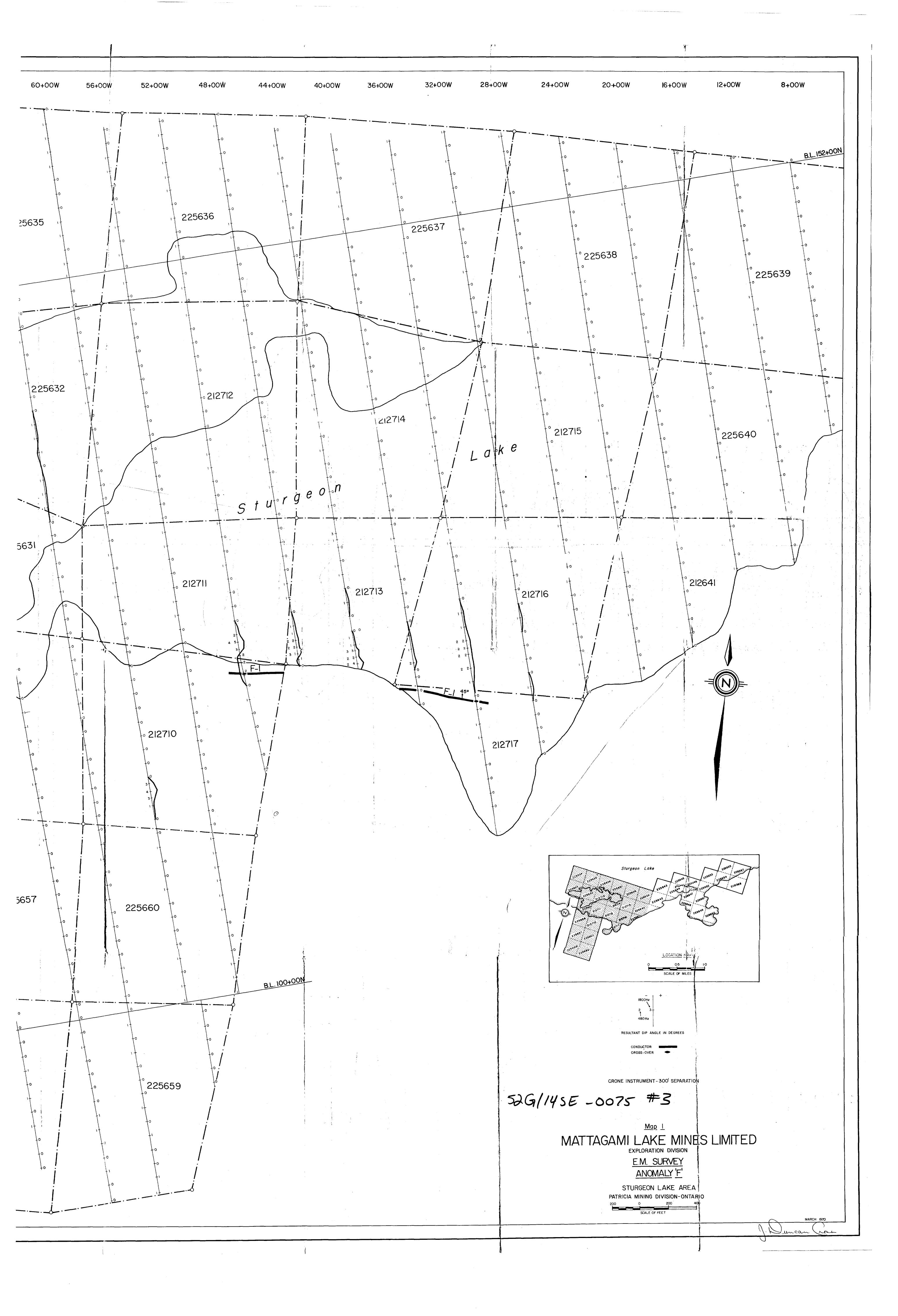


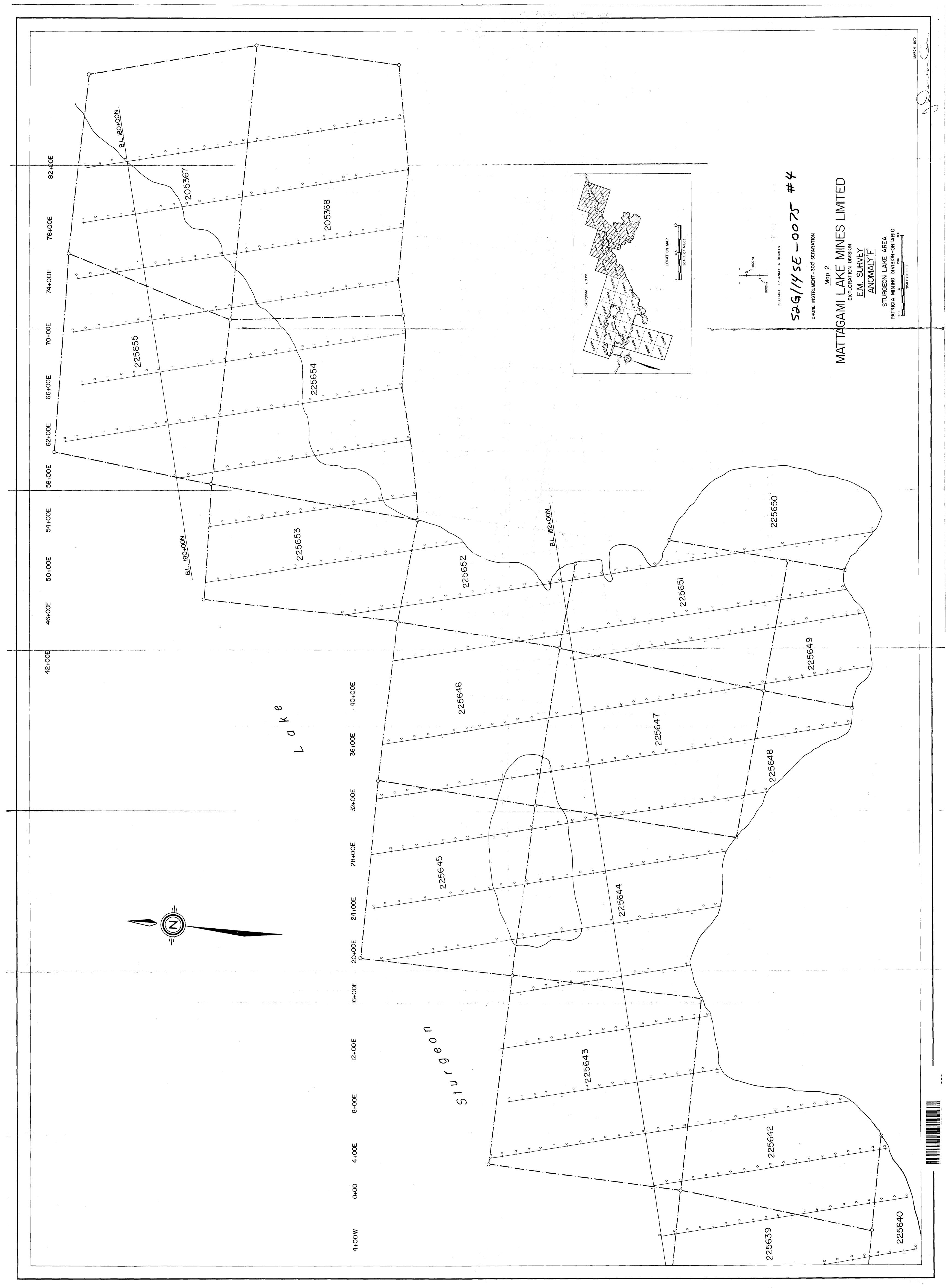
(X)

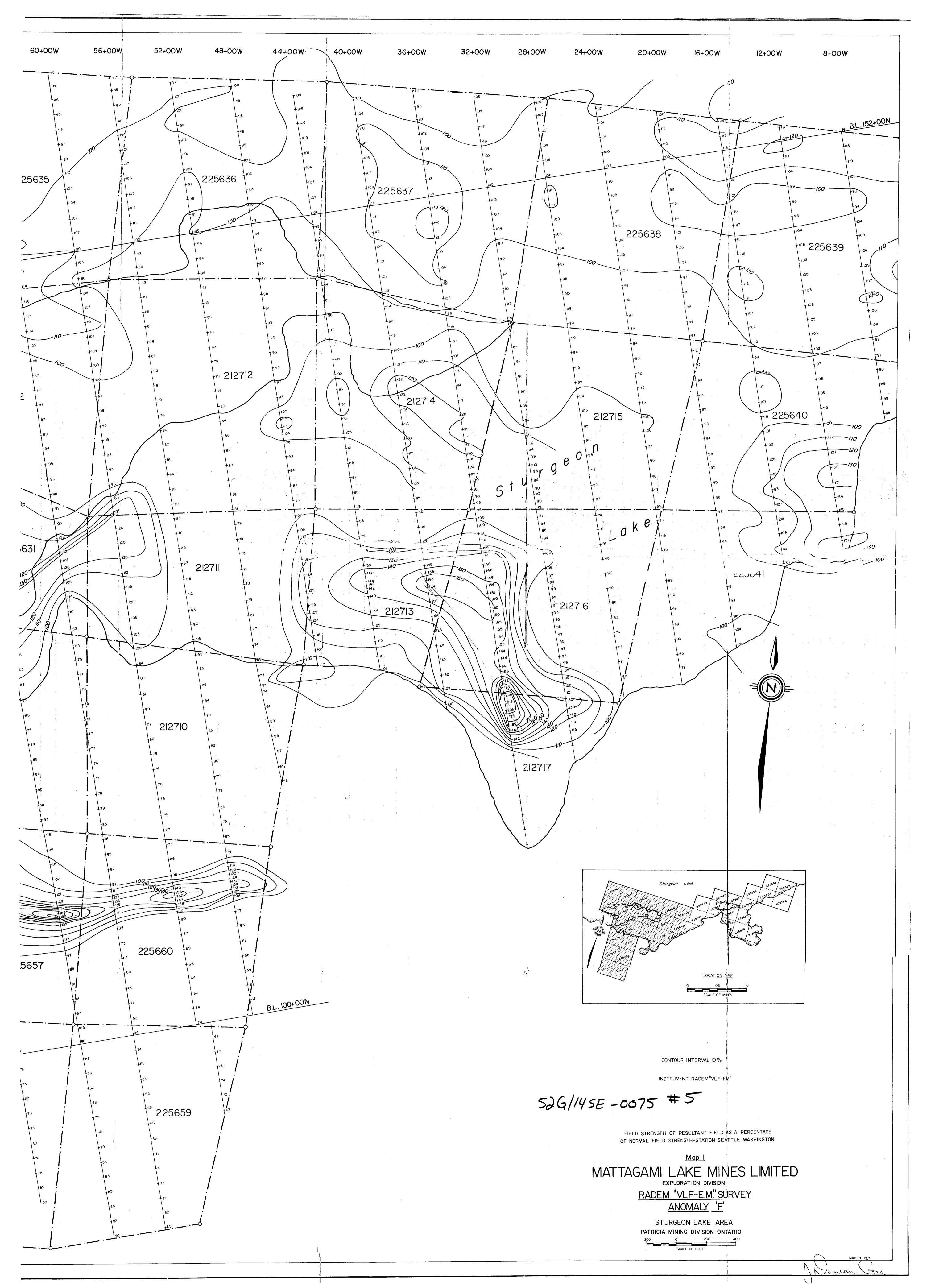


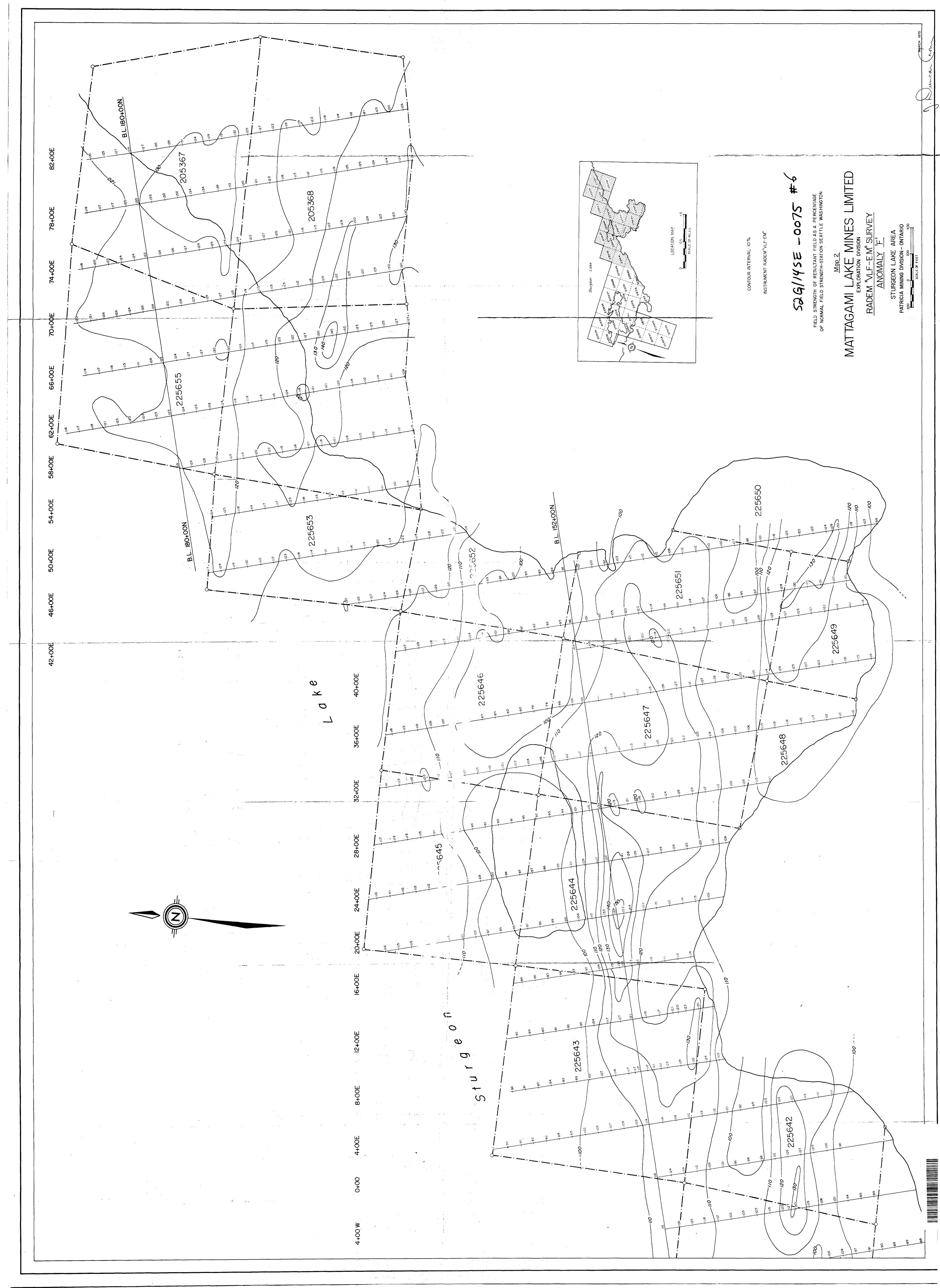


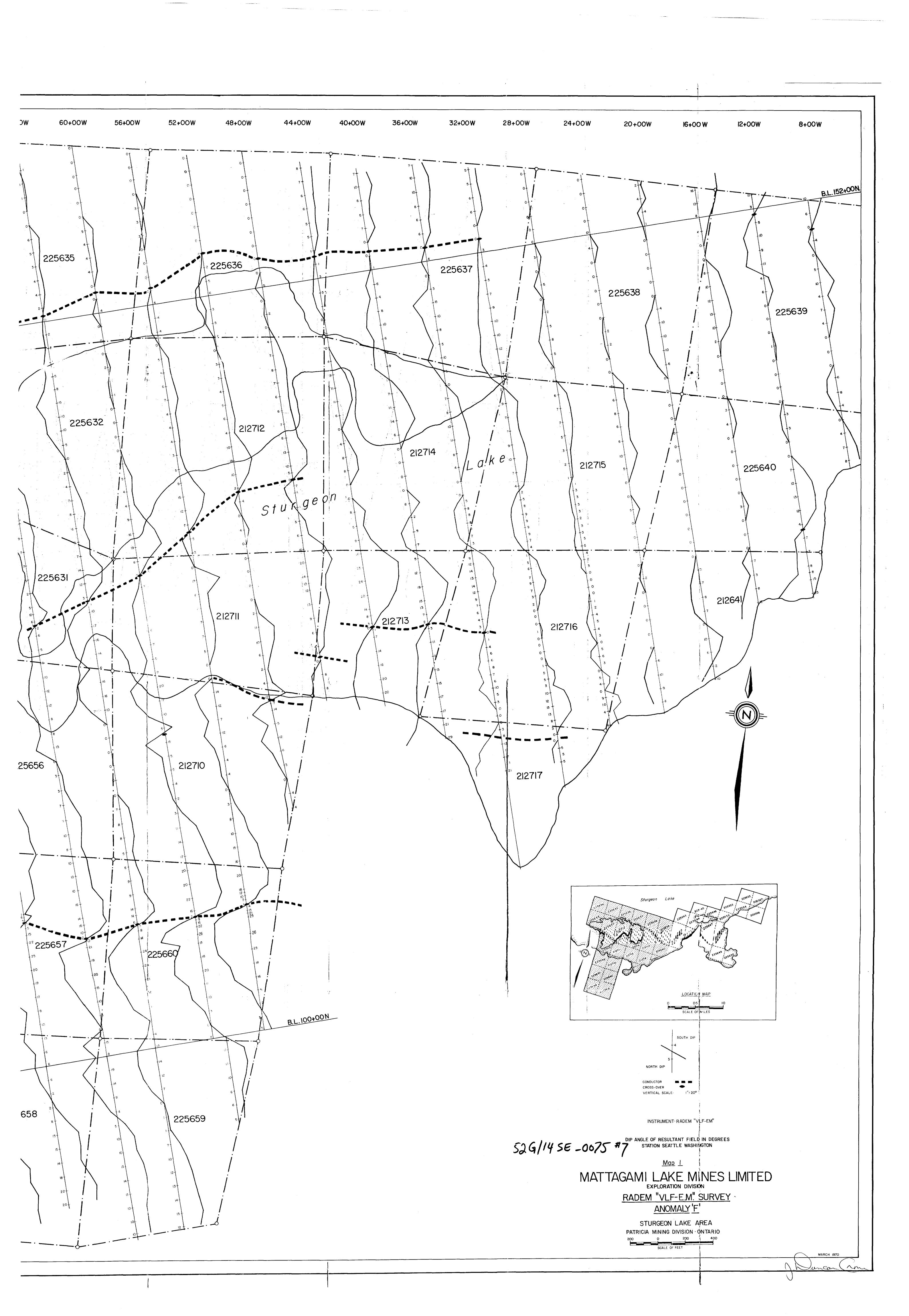


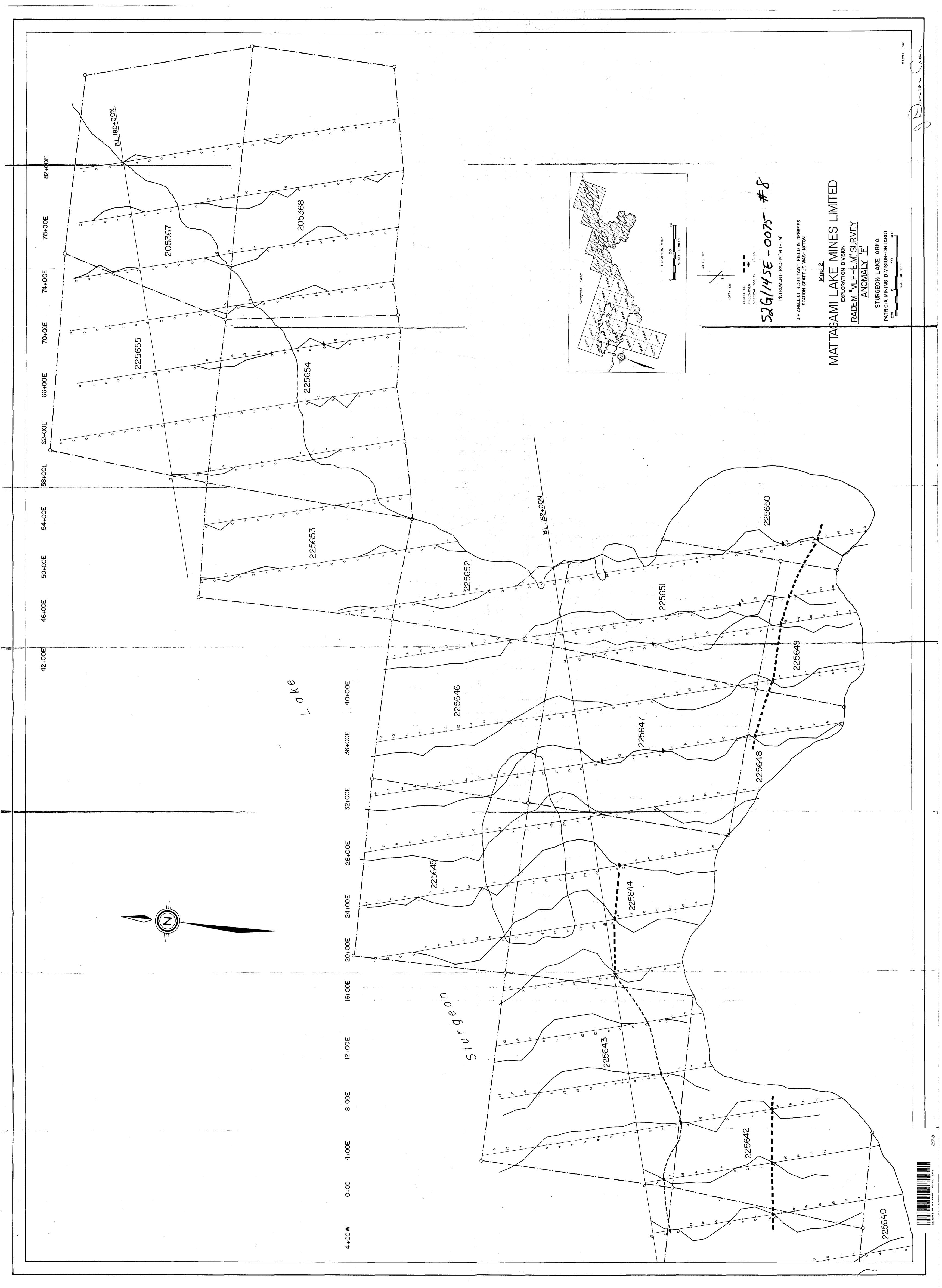


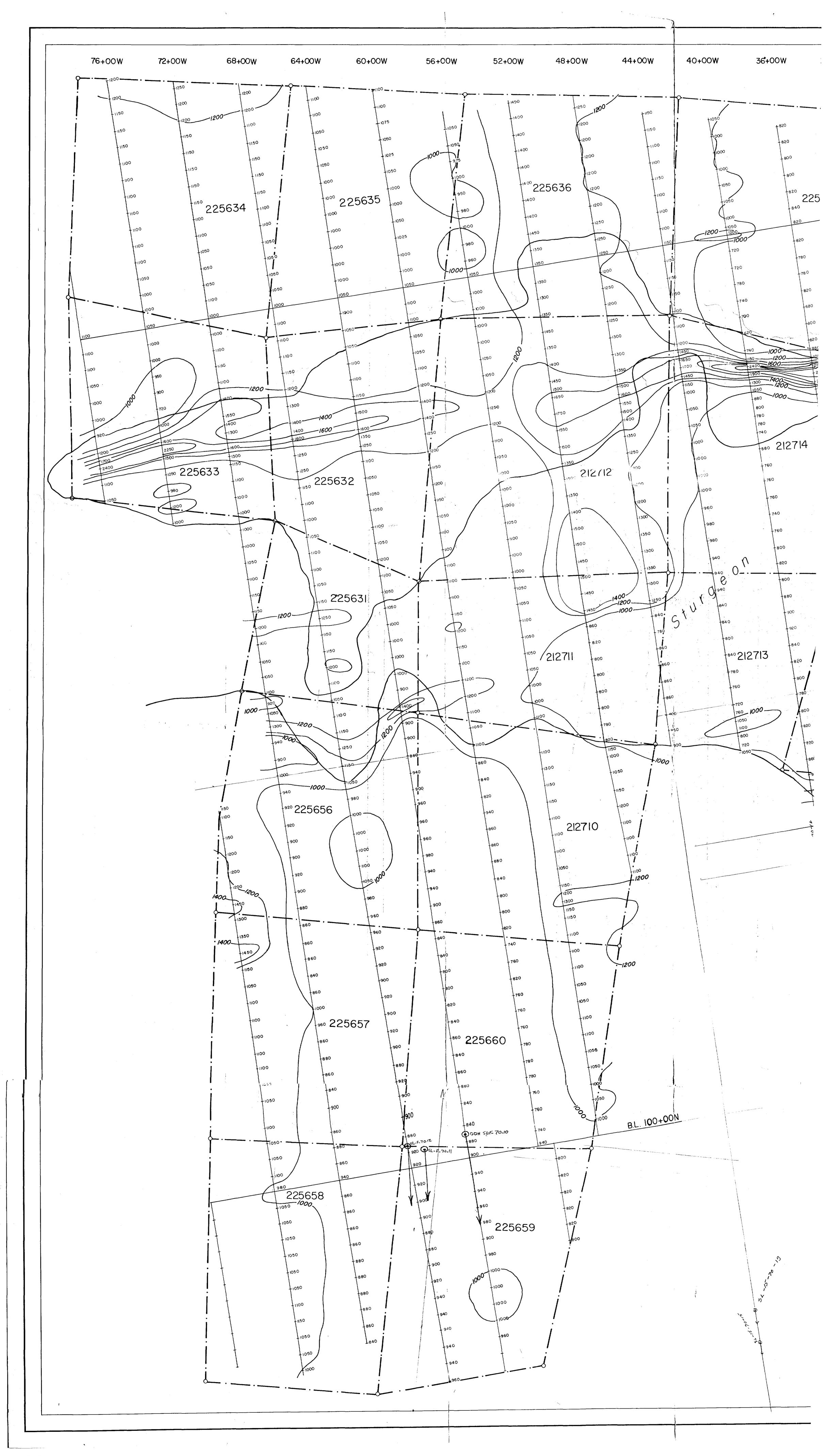




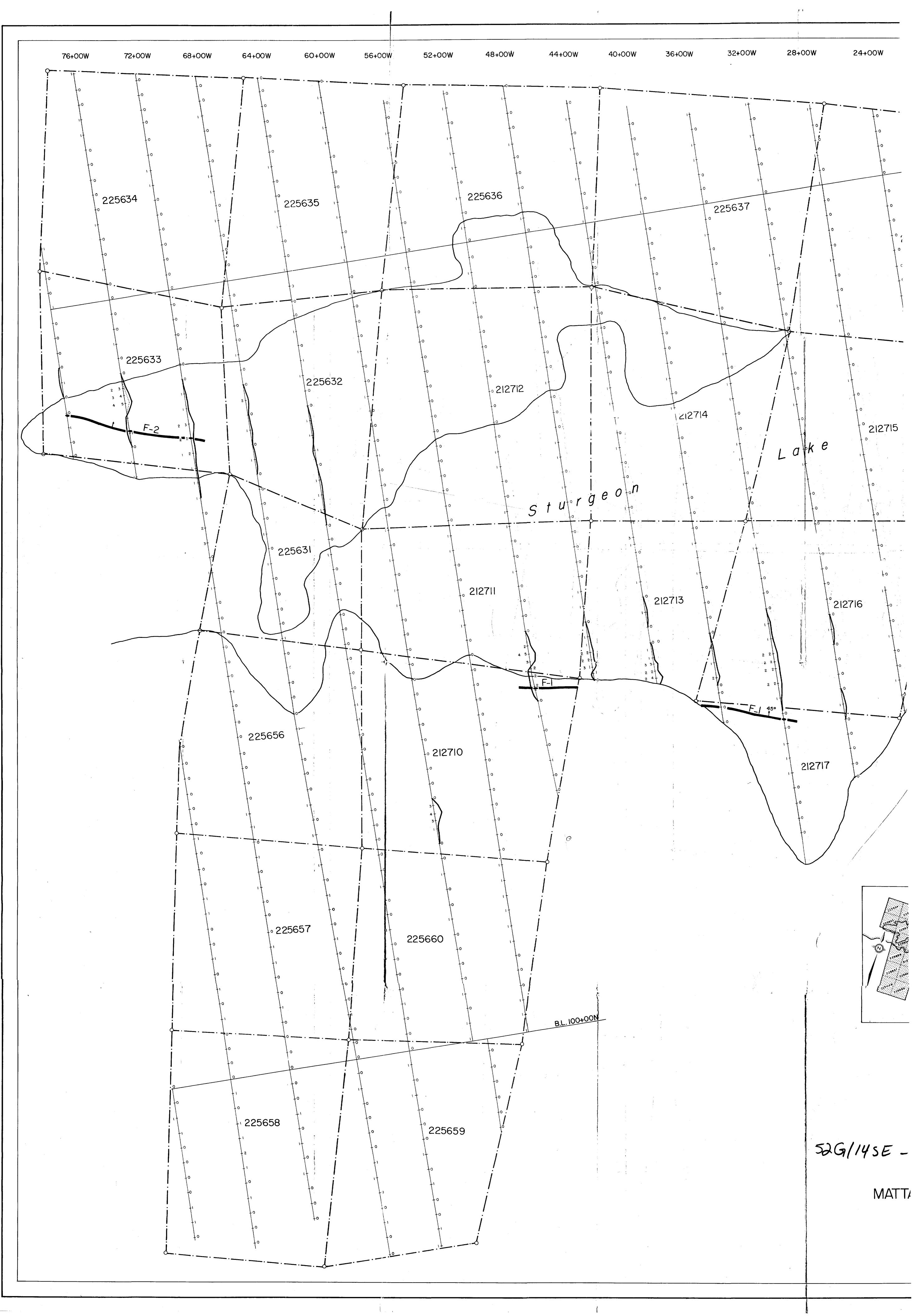




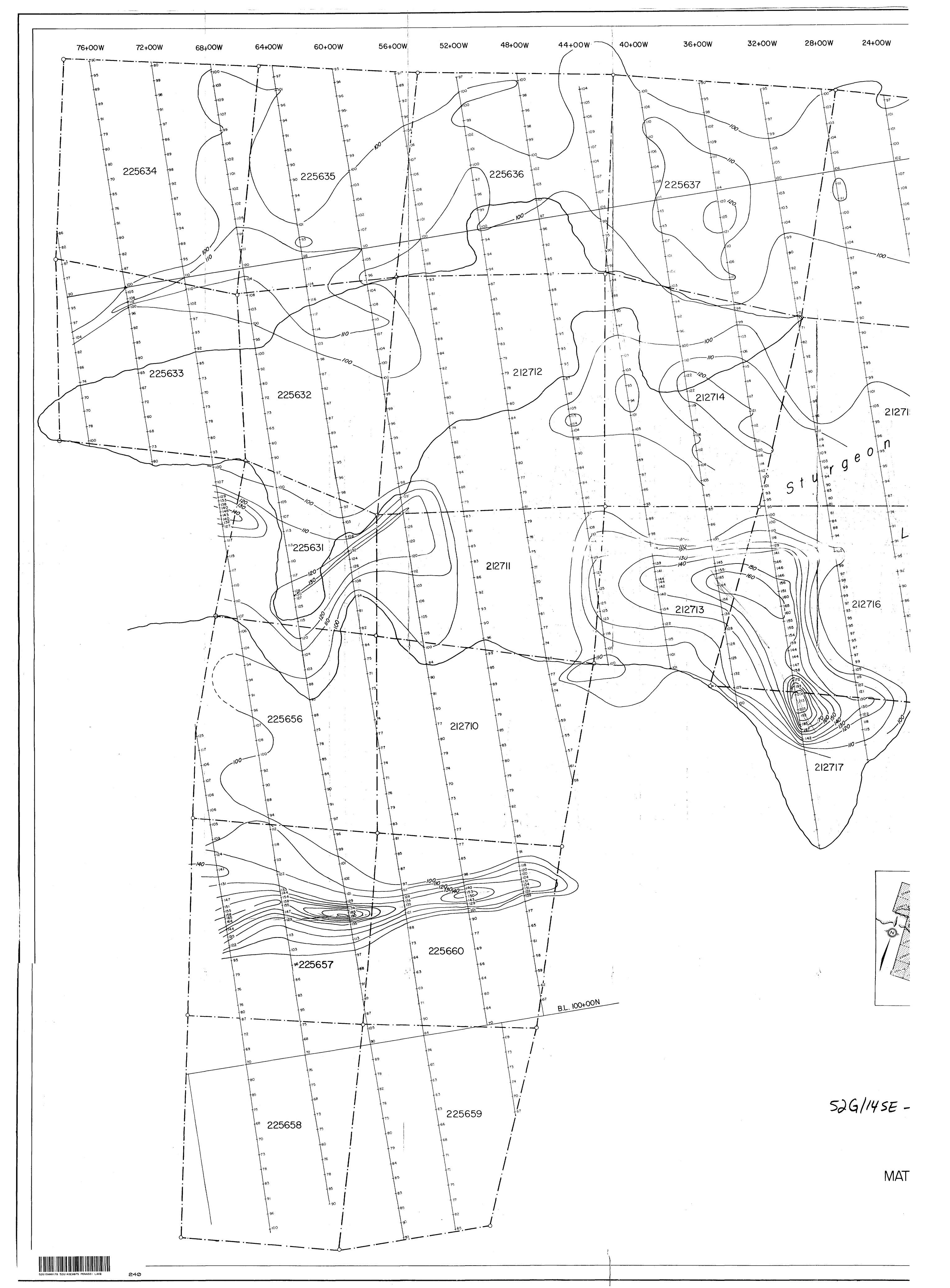


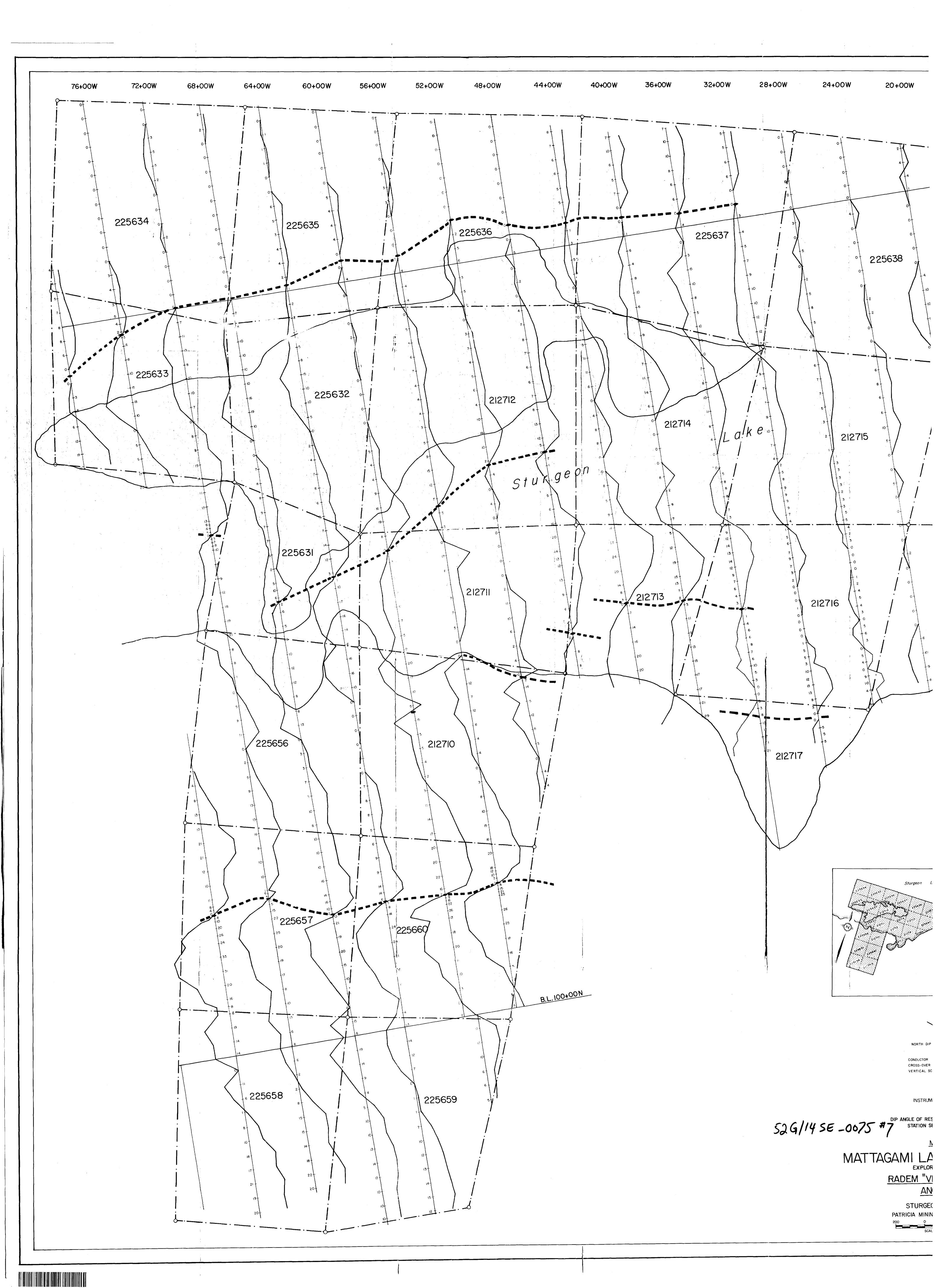












------