OM83-6-C-16

010

REPORT ON
THE ONTARIO PAPER COMPANY
FREEHOLD PARCELS
STOCK-MCCANN BLOCK
LARDER LAKE MINING DIVISION
DISTRICT OF COCHRANE, ONTARIO
FOR STEBOB RESOURCES LIMITED

B. & C. LTD.

DERRY, MICHENER, BOOTH & WAHL

D. G. Wahl, P.Eng.
Consulting Engineer

Toronto, Canada
April 13, 1983

T/

B. & C. LTD.

LIST OF FIGURES

LIST OF MAPS

SUMMARY

The Stock-McCann Block comprises 29 patented lots totalling approximately 4,400 acres in Stock, Taylor, Carr, Bond, Currie, Bowman, Sheraton, Egan and McCann Townships approximately 30 miles east of Timmins, Ontario.

The majority of these freehold parcels, 24 out of a total of 29, are located in Bond, Sheraton and Egan Townships; all of which are located on the limbs of the Sheraton-Egan-McCann syncline which consists of a complex sequence of mafic to intermediate to felsic metavolcanic and metasedimentary rocks. Several of the blocks, N-12, 13, 20, 40 and 41 lie astride the Destor-Porcupine Fault which is the major locus of gold mineralization throughout the region and therefore these blocks are very prospective. Freehold parcels N-21, 22, 38 and 39 situated in the northwest corner of Bond Township lie along strike approximately 3½ miles east of the ASARCO Aquarius deposit. Diamond drilling carried out 3,000 ft. northeast of N-39 intersected heavily carbonatized metavolcanics containing numerous quartz-carbonate veins suggesting that similar structures may be present on the patented lands.

Patented parcels N-15, 16, 44, 45, 46, 47 and 48 are located within and peripheral to the Bradley Lake syenite and have potential for porphyry-type gold mineralization.

The majority of the freehold parcels located in the Stock-McCann Block are situated within highly favourable lithological as well structural environments. The patented nature of these parcels and the absence of any previous option agreements presents a unique opportunity to carry out exploration on previously unexplored properties within the Timmins gold camp.

INTRODUCTION

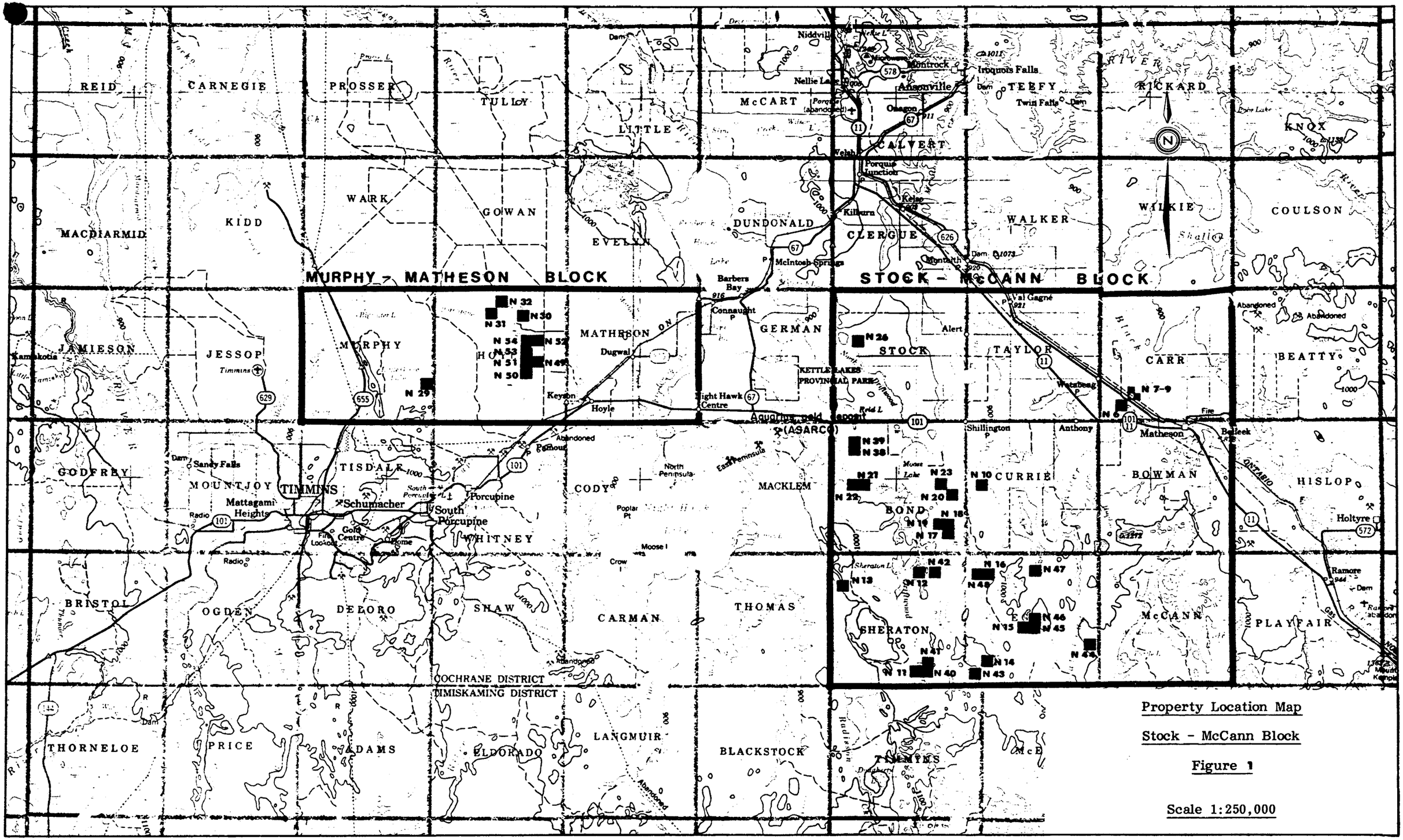
The following report was prepared by Derry, Michener, Booth and Wahl at the request of Mr. F. W. Christensen, President, Stebob Resources Limited and is based on our examination and evaluation of all available data pertaining to 29 freehold properties, totalling 4,400 acres owned by the Ontario Paper Company in Pic Township, Ontario.

PROPERTY AND LOCATION

The Stock-McCann Block, consisting of Stock, Taylor, Carr, Bond, Currie, Bowman, Sheraton, Egan and McCann Townships, is situated in the Larder Lake Mining Division, District of Cochrane; approximately 30 miles east of Timmins, Ontario.

The properties of the Stock-McCann Block are outlined on Figure 1 and consist of the following 29 patented lots comprising approximately 4,400 acres: -

N-26	Stock Township	N½ Lot 10, Con. IV, SMR*
N-6	Carr Township	N½ Lot 11, Con. I, SMR
N-7	Carr Township	NW¼ S½ Lot 10, Con. II, SMR
N-9	Carr Township	SE¼ S½ Lot 10, Con. II, SMR
N-17	Bond Township	N½ Lot 2, Con. I, SMR
N-18	Bond Township	S½ Lot 2, Con. II, SMR
N-19	Bond Township	S½ Lot 3, Con. II, SMR
N-20	Bond Township	N½ Lot 2, Con. III, SMR


MURPHY - MATHESON BLOCK
STOCK - McCANN BLOCK
REID
CARNEGIE
PROSSER
TULLY
LITTLE
McCART
CALVERT
KICKARD
RIVER
KNOX
WARK
GOWAN
EVELYN
DUNDONALD
CLERGUE
WALKER
WILKIE
COULSON
MACDIARMID
KIDD
JAMIESON
JESSOP
MURPHY
MATHESON
GERMAN
STOCK
TAYLOR
CARR
BEATTY
GODFREY
MOUNTJOY
TISDALE
CODY
MACKLEM
BOND
CURRIE
BOWMAN
HISLOP
BRISTOL
OGDEN
DELORO
SHAW
CARMAN
THOMAS
SHERATON
McCANN
PLAYFAIR
THORNELOE
PRICE
ADAMS
ELDORADO
LANGMUIR
BLACKSTOCK
TIMMINS
COCHRANE DISTRICT
TIMISKAMING DISTRICT
Timmins
Schumacher
South Porcupine
Porcupine
Mattagami Heights
Gold Centre
Connaught
Dugwal
Keyston
Hoyle
Barbers Bay
McIntosh Springs
Killburn
Porquis Junction
Kelso
Montcalm
Iroquois Falls
Twin Falls
Ansonville
Matheson
Shillington
Anthony
Val Gagné
Watabeag
Alert
Kamakotia
Sandy Falls
Night Hawk Centre
Aquarius gold deposit
(ASARCO)
KETTLE LAKES PROVINCIAL PARK
N 32
N 30
N 31
N 54
N 52
N 53
N 51
N 49
N 50
N 29
N 26
N 39
N 38
N 21
N 23
N 22
N 20
N 18
N 19
N 17
N 10
N 7-9
N 42
N 13
N 12
N 16
N 47
N 48
N 46
N 45
N 44
N 41
N 11
N 40
N 14
N 43
Property Location Map
Stock - McCann Block
Figure 1
Scale 1:250,000

N-21	Bond Township	S½ Lot 10, Con. IV, SMR
N-22	Bond Township	S½ Lot 11, Con. IV, SMR
N-23	Bond Township	S½ Lot 3, Con. IV, SMR
N-38	Bond Township	N½ Lot 11, Con. V, SMR
N-39	Bond Township	S½ Lot 11, Con. VI, SMR
N-10	Currie Township	S½ Lot 11, Con. IV, SMR
N-11	Sheraton Township	N½ Lot 5, Con. I, SMR
N-12	Sheraton Township	S½ Lot 5, Con. VI, SMR
N-13	Sheraton Township	N½ Lot 11, Con. V, SMR
N-40	Sheraton Township	N½ Lot 4, Con. I, MRO**
N-41	Sheraton Township	S½ Lot 4, Con. II, MRO
N-42	Sheraton Township	S½ Lot 3, Con. VI, MRO
N-14	Egan Township	S½ Lot 10, Con. II, SMR
N-15	Egan Township	N½ Lot 7, Con. III, SMR
N-16	Egan Township	S½ Lot 10, Con. VI, SMR
N-43	Egan Township	N½ Lot 11, Con. I, MRO
N-44	Egan Township	S½ Lot 1, Con. III, MRO
N-45	Egan Township	N½ Lot 6, Con. III, MRO
N-46	Egan Township	S½ Lot 6, Con. IV, MRO
N-47	Egan Township	S½ Lot 6, Con. VI, MRO
N-48	Egan Township	S½ Lot 11, Con. VI, MRO

*SMR - Surface and Mineral Rights

**MRO - Mineral Rights Only

REGIONAL GEOLOGY

The geology of the area consists of easterly to north-easterly trending mafic to felsic Archean metavolcanics with subordinate associated metasediments which locally define synclinal or anticlinal structures (Ref. Map 6h). Mafic metavolcanics dominate the southern portion of the volcanic domain whereas felsic metavolcanics are more abundant throughout the central and northeastern portions. The Destor-Porcupine Fault, the locus of gold mineralization throughout the region, passes in an easterly trend through the northern portion of the area (Stock, Taylor and Carr Townships) defining a sharp break between metasediments to the north and the predominantly metavolcanic terrain to the south. The Pipestone Fault passes northeasterly across the northeastern portion of Stock Township defining the northern boundary of the metasedimentary band which is of regional significance.

Two syenitic bodies intrude the metavolcanics in the southeastern portion of the area, and three generations of diabase dykes crosscut all other lithologies.

Pleistocene clay cover is extensive throughout the central portion of the area, obscuring all exposures.

PREVIOUS WORK

Previous work in the area consisted of airborne and ground geophysical surveys as well as diamond drilling.

Magnetic surveys have succeeded in delineating the diabase dykes mapped to date and suggest that similar dykes are far more abundant than those delineated to date from surface exposures.

Electromagnetic surveys have delineated a number of conductors (many of which with easterly trends) believed to reflect abrupt lithologic contrasts or graphitic horizons within the metavolcanic-metasedimentary composites.

Diamond drill programmes have further defined numerous ground geophysical anomalies; intersecting graphitic beds and sulphides consisting of pyrite, pyrrhotite, chalcopyrite, sphalerite and galena. It is also evident from the drilling that porphyry dykes are common throughout the metavolcanic-sedimentary domain.

Major Discoveries

There have been no major discoveries in the Stock-McCann Block; however, the recent (Sept. 1980) ASARCO Aquarius discovery, located in the northeast corner (Lot 6, Con VI) of Macklem Township approximately 3½ miles west of N-37 and N-38, has added significantly to the exploration potential of the Stock-McCann Block and in particular the Bond Township properties. Macklem Township, like all of the townships in the project area, is extensively covered with glacial till and varved clays which can be over 200 feet thick. This overburden presents a unique exploration challenge.

The Aquarius deposit was discovered as a result of an extensive basal till sampling programme followed-up by diamond drilling. The deposit has been outlined along strike for 900 feet by 23 diamond drill holes. The gold mineralization is

erratic and consists of visible gold in the matrix of an easterly trending quartz-carbonate breccia zone lying within an easterly trending carbonatized mafic metavolcanic rock. Intersections are reported to range from 10 feet up to 55 feet of core length and average 0.10 oz. gold per ton up to a high of 0.40 oz. gold per ton (N.M. Sept. 1980). Subsequent shaft sinking and underground exploration has confirmed that the gold is erratically distributed throughout the deposit and that all future work will be directed towards outlining additional reserves. No work is presently being undertaken on the property.

In addition to the Aquarius deposit numerous gold and base metal occurrences have been discovered in the project area with specific reference to Bond, Currie, Sheraton and Egan Townships.

B. & C. LTD.

DISCUSSION

The majority of the freehold parcels, twenty-four out of a total of twenty-nine, are located in Bond, Sheraton and Egan Townships; all of which are located on the limbs of the Sheraton-Egan-McCann syncline which consists of a complex sequence of mafic to intermediate to felsic metavolcanic and metasedimentary volcanic rocks. This regional structural feature trends easterly across Sheraton Township into Egan and McCann Townships where it has been disrupted by the Bradley Lake and Wildgoose Lake syenites.

Parcel N-26 located in Stock Township is favourably situated between the Pipestone and the Destor-Porcupine faults and is underlain by metagreywacke and related argillitic rocks. The area is extensively covered with glacial till and varved clay.

Freehold parcels N-6, 7 and 9 are located in the southwest corner of Carr Township, in an area extensively covered by varved clays. The properties are geologically interpreted to be underlain by easterly trending intermediate to felsic metavolcanics.

Freehold parcels N-38 and N-39, situated in the northwest corner of Bond Township, are located approximately 3½ miles east of Asarco's Aquarius deposit. Diamond drilling carried out 3,000 feet northeast of N-39 intersected intensely carbonatized metavolcanics containing numerous quartz-carbonate (calcite-ankerite) veins.

Parcels N-10, N-20, 21, 22 and 23, are situated in the central portion of Bond and Currie Townships, located immediately south and east of N-38 and N-39. The properties lie in an area of extensive clay cover and are believed to be underlain by easterly trending mafic and intermediate to felsic metavolcanics. A major north-northwesterly trending fault zone has been geophysically inferred along the eastern edge of N-20.

In the southern part of Bond Township and the north half of Sheraton Township freehold parcels N-12, 13, 42 and 17 through 19 are underlain by mafic to intermediate metavolcanics and metasediments; all of which have been disrupted by several major north-northwesterly trending fault zones. Numerous parallel diabase and porphyry dykes have been geophysically inferred in the area.

Parcels N-17 through N-19 tie onto the old Seaway Copper property which lies astride the Bond-Sheraton Township boundary. The main area of interest on the Seaway property centres around several east-northeasterly anomalous conductive

zones on the south half of Lot 5, Concession I of Bond Township. Subsequently drilling intersected a graphitic tuff-slate bed containing low grade base metal sulphides. Intersections of up to 42 feet averaging 3.02% zinc and 0.26% lead were recorded with the OGS Assessment Work Library. A major fault zone trending north-northwesterly across the anomalous conductive zone has also been inferred. These and other conductors strike onto the adjoining parcels N-17 through N-19.

Parcels N-12 and N-42 located in the north half of Sheraton Township tie onto the southern boundary of the old Seaway Copper property and also lie adjacent to the J. P. Roy gold occurrence located on the south half of Lot 4, Concession VI. The J. P. Roy occurrence lies within a mafic metavolcanic fragmental which has been cut by northerly trending porphyry and diabase dykes. The gold occurs as free gold in quartz stringers associated with the porphyry dykes and adjacent wall rocks. A selected grab sample taken by the O.G.S. averaged 0.32 oz. gold per ton. Similar porphyry dykes could exist on adjoining parcels N-17 and N-42. A major north-northwesterly trending fault zone is also mapped on N-12. This fault zone could have acted as a channel way for mineralizing solutions.

In the southern part of Sheraton and Egan Township freehold parcels N-11, 40 and 41 are underlain by easterly trending mafic tuff and pillowed metavolcanic rocks. A major fault zone trends north-northwest across parcels N-40 and 41 and offsetts an easterly trending geophysically inferred quartz diabase dyke. Minor pyrite and pyrrhotite is reported (OGS Assessment Work Library) 3,000 feet east of the property along the contact between the dyke and the metavolcanics.

Parcels N-14 and N-43 are located in the southwest corner of Egan Township and are underlain by a sequence mafic metavolcanics, metagreywacke and related

argillitic rocks. Geophysical data infers several diabase dykes trend northerly across parcel N-43.

Freehold parcels N-15, 16, 44, 45, 46, 47 and 48 are located in Egan Township and are underlain by the Bradley Lake Syenite. Numerous diabase dykes trend northerly across the properties. Two major north-westerly fault zones have also been mapped. These fault zones offsett significant portions of the intrusive.

CONCLUSIONS

The majority of the freehold parcels located in the Stock-McCann Block are situated within favourable lithologic as well as structural environments.

The Destor-Porcupine fault, the locus of gold mineralization throughout the region, and the related cross faults have acted as channelways for mineralizing solutions. Several of the freehold parcels N-12, 13, 20, 40 and 41 lie astride these major cross faults and therefore exhibit good exploration potential not only for gold but also for base metals as indicated on the Seaway Copper property discussed earlier.

Freehold parcels N-21, 22, 38 and 39 situated in the northwest corner of Bond Township exhibit good exploration potential because of their structural relationship to the Aquarius and other gold deposits mapped in the northeast corner of Macklem Township. The intersection of heavily carbonatized metavolcanics containing quartz-ankerite veins on strike and 3,000 feet northeast of N-39 increases the exploration potential of parcels N-38 and N-39.

The Sheraton-Egan-McCann syncline is an anomalous metalliferous structural feature exhibiting numerous base and precious metal occurrences. These occurrences are hosted by a complex sequence of metavolcanic and metasedimentary rocks. All of the freehold parcels in Bond, Currie, Sheraton and Egan Townships lie on the flanks of this syncline.

The relative structural position of the Bradley Lake Syenite is also significant as a possible host rock for "porphyry-type" sulphide mineralization. The numerous cross faults cutting both the metavolcanics and the intrusive body could provide the necessary plumbing systems for the mineralizing solutions. Freehold parcels N-15, 16, 44, 45, 46, 47 and 48 located within and peripheral to the syenite would be possible "porphyry-type" exploration targets.

RECOMMENDATIONS

Based on the forementioned conclusions it is recommended that the following three-year exploration program be carried out over the Stock-McCann properties:

FIRST YEAR

During the first year, nearly all of the freehold properties will be evaluated on a reconnaissance basis. This will be accomplished by one three-man field crew, responsible for initiating magnetometer and electromagnetic surveys on a 400-foot controlled grid traverse. Geological mapping and geochemical sampling will be carried out at the same time.

SECOND YEAR

During the early part of the second field season, the remaining properties will be investigated on a reconnaissance basis, allowing the majority of the field season for detailed investigation of the more promising properties. This will include line cutting, magnetometer and deep penetration electromagnetic surveys, geological mapping and diamond drilling.

THIRD YEAR

During the third field season the detailed investigations will be completed.

The first year's exploration program will be carried out by Derry, Michener, Booth & Wahl according to the following cost estimate:

COST ESTIMATE

STEBOB - O.P.C. JOINT VENTURE

PROJECT VARIABLES:

(a) DURATION

Pre-Engineering	2 weeks
Field Examination	14 weeks
Data Compilation & Report	4 weeks

(b) FIELD CREW (2)

Geologist-Party Chief

Senior Technician

Junior Technician

(c) FIELD CREW BILLING RATE

Geologist-Party Chief	$200/day
Senior Technician	$130/day
Junior Technician	$100/day
TOTAL;	$430/crew-day

COST SUMMARY

TO FEES			
(i)	Pre-Engineering & Logistics	$ 3,800	
(ii)	Field Crews	45,150	
(iii)	Supervision	3,150	
(iv)	Data Compilation & Report	7,500	
(v)	Accounting & Secretarial	1,600	61,200
TO EXPENSES			
(i)	Air Photographs, maps & Publications	$ 1,250	
(ii)	Travel (truck rentals)	4,250	
(iii)	Consumables (field)	5,355	
(iv)	Consumables (town)	1,345	
(v)	Lodging (town)	2,250	
(vi)	Camp Costs	5,000	
(vii)	Instrument Rentals	5,418	
(viii)	Air Charter	2,500	
(ix)	Boats & Motors	2,625	
(x)	Analysis	1,250	
(xi)	Air Travel	1,750	
(xii)	Printing & Reproduction	807	
(xiii)	Contingency	5,000	38,800
		TOTAL:	$100,000

DETAILED COST ESTIMATE

TO FEES

(i)	Pre-Engineering & Logistics		$ 3,800
(ii)	Field Crews (3½ months) 1-3 man field crew @ $45,150/crew		45,150
(iii)	Supervision (3½ months) 2 days/month @ $450/day		3,150
(iv)	Data Compilation & Report		7,500
(v)	Accounting & Secretarial		
	-Secretarial 10 days @ $100/day	$1,000	
	-Accounting 4 days @ $150/day	600	1,600
		TOTAL:	$61,200

B.&C. LTD.

DETAILED COST ESTIMATE (CONTINUED)

TO EXPENSES

(i)	Pre-Engineering & Logistics		
	-Travel -Maps, publications, airphoto		$ 1,250
(ii)	Travel (4 months)		
	-1 only 4x4 Jeep including gas		4,250
(iii)	Consumables (field)		
	-(3 men) (3½ months) ($17/day/man)		5,355
(iv)	Consumables (town)		
	-contingency allowance for meals obtained in town		1,345
(v)	Lodging (town)		
	-contingency allowance for hotels		2,250
(vi)	Camp Costs		
	-i.e. tents, stoves, cookery, etc.		5,000
(vii)	Instrument Rentals		
	-MP-2 TOTAL FIELD PROTON MAGNETOMETER (1 only) ($774/month) (3½ months)	$2,709	
	-VLF EM-16 (1 only) ($774/month) (3½ months)	2,709	5,418
(viii)	Air Charter		2,500
(ix)	Boat & Motors		
	-1 canoe and motor (1) ($25/day) (30) (3½ months)		2,625

B.A.C. LTD.

DETAILED COST ESTIMATE (CONTINUED)

TO EXPENSES (Continued...)

(x)	Analyses	1,250
(xi)	Air Fare & Travel	
	-Supervising Geologist	1,750
(xii)	Printing & Reproduction	807
(xiii)	Contingency	5,000
	TOTAL:	$38,800

Respectfully submitted,

DERRY, MICHENER, BOOTH & WAHL

D. G. Wahl, P.Eng.
Consulting Engineer

Toronto, Ontario
April 13, 1983

REPORT ON RECONNAISSANCE GEOPHYSICAL AND GEOLOGICAL EXPLORATION OF THE STOCK-MCCANN BLOCK, LARDER LAKE AND PORCUPINE MINING DIVISIONS, DISTRICT OF COCHRANE, ONTARIO FOR SHOGRIN MINERALS INC.

VOLUME I

S. S. McRoberts, B.Sc.

D. G. Wahl, P.Eng.

REGISTERED PROFESSIONAL ENGINEER
D. G. WAHL
PROVINCE OF ONTARIO

W. N. Pearson, Ph.D.

Toronto, Canada
March 12, 1984

TABLE OF CONTENTS

LIST OF MAPS
(In Pockets)

Map No.	Grid	Description
100A	N-6, 7, 8, 9	Proton Magnetometer Survey
100B	N-6, 7, 8, 9	VLF-EM 16 Survey, NAA - Cutler, Main
101A	N-10	Proton Magnetometer Survey
101B	N-10	VLF-EM 16 Survey, NAA - Cutler, Maine
102A	N-11, 40, 41	Proton Magnetometer Survey
102B	N-11, 40, 41	VLF-EM 16 Survey, NAA - Cutler, Maine
102C	N-11, 40, 41	Geology
103A	N-12	Proton Magnetometer Survey
103B	N-12	VLF-EM 16 Survey, NAA - Cutler, Maine
104A	N-13	Proton Magnetometer Survey
104B	N-13	VLF-EM 16 Survey, NAA - Cutler, Maine
105A	N-17, 18, 19	Proton Magnetometer Survey
105B	N-17, 18, 19	VLF-EM 16 Survey, NAA - Cutler, Maine
105C	N-17, 18, 19	Geology
VOLUME II		
106A	N-21, 22	Proton Magnetometer Survey
106B	N-21, 22	VLF-EM 16 Survey, NAA - Cutler, Maine
107A	N-20, 23	Proton Magnetometer Survey
107B	N-20, 23	VLF-EM 16 Survey, NAA - Cutler, Maine
107C	N-20, 23	Geology
108A	N-26	Proton Magnetometer Survey
108B	N-26	VLF-EM 16 Survey, NAA - Cutler, Maine
109A	N-38, 39	Proton Magnetometer Survey
109B	N-38, 39	VLF-EM 16 Survey, NAA - Cutler, Maine
110A	N-42	Proton Magnetometer Survey
110B	N-42	VLF-EM 16 Survey, NAA - Cutler, Maine
110C	N-42	Geology
111A	N-14, 43	Proton Magnetometer Survey
111B	N-14, 43	VLF-EM 16 Survey, NAA - Cutler, Maine
111C	N-14, 43	Geology
112A	N-44	Proton Magnetometer Survey
112B	N-44	VLF-EM 16 Survey, NAA - Cutler, Maine
112C	N-44	Geology
113A	N-47	Proton Magnetometer Survey
113B	N-47	VLF-EM 16 Survey, NAA - Cutler, Maine
114A	N-16, 48	Proton Magnetometer Survey
114B	N-16, 48	VLF-EM 16 Survey, NAA - Cutler, Maine

SUMMARY

A reconnaissance program consisting of proton precession magnetometer and VLF electromagnetic surveys, geological mapping and some rock geochemical sampling was carried out during the 1983 summer exploration season by Derry, Michener, Booth & Wahl over 29 freehold parcels owned by The Ontario Paper Company (OPC) southeast of Timmins, Ontario in an area designated as the Stock-McCann Block, all of which are presently under option to Shogrin Minerals Inc.

Numerous significant exploration targets have been outlined on 13 of the 29 freehold parcels investigated during the summer program. The 13 freehold parcels that warrant further investigation are N-10, N-11, N-12, N-13, N-14, N-17, N-18, N-19, N-22, N-26, N-39, N-40 and N-41.

Exploration targets include several moderate to strong VLF-EM conductors, possible alteration zones associated with magnetic lows and faults, and metasediment underlying N-26. All exploration targets for the 13 parcels have been summarized in the following table:

Freehold Parcel(s)	Exploration Targets	Priority	Comments
N-10	two 100 m wide magnetic lows	high	may represent possible alteration zones
N-11, 40, 41	a north-trending fault zone and the associated large, 300 m wide, magnetic low	high	may reflect possible alteration along the fault

Parcel(s)	Exploration Target	Priority	Comments
N-11, 40, 41 (cont'd)	several moderate to strong VLF-EM conductors of which N-41-4 and N-41-9 are the most significant	high	may reflect possible mineralization
	sulphide-bearing quartz vein with significant arsenic, copper, zinc and lead values	high	may reflect further mineralization
N-12	north-trending fault	moderate	possible locus for mineralization
	a 100 m wide, magnetic low	moderate	possible alteration
	another, 100 m wide magnetic low in close proximity to the fault	moderate	may reflect alteration associated with the fault
	gold occurrence 400 m to the east	moderate	
N-13	a north-south west striking fault zone and associated magnetic lows	high	may reflect alteration associated with the fault
	numerous small isolated magnetic lows across the property	high	may represent alteration
N-14,43	a group of moderate to strong VLF conductors (N-14-1) in proximity to elongated magnetic lows	high	possible mineralization within alteration zones
	a highly magnetic gabbro which contains pyrite and magnetite	high	possible extensive mineralization
	two northeast-trending fault zones with several weak VLF conductors	high	possible mineralization from within alteration zones

Parcel(s)	Exploration Target	Priority	Comments
N-14, 43 (cont'd)	two weak to strong conductors N-43-1 and N-43-10	high	may represent possible mineralization
	Fe, Cu showing to the northwest of N-43	high	
N-17, 18, 19	a north-northwest trending fault	high	could be possible alteration and mineralization associated with the fault
	pyrite-bearing shear zone and associated conductors (N-17-3 and N-17-4)	high	possibility for an extended strike length
N-22	one strong VLF-EM conductor (N-22-4) within mafic volcanics	moderate	possible mineralization
N-26	underlain by meta-sediments similar to those at Hemlo	high	
N-39	one strong VLF-EM 300 m long anomaly	high	possible mineralization

Fourty-three (43) additional unpatented mining claims were staked to cover possible extensions of the promising exploration targets outlined on parcels N-10, N-13, N-14 and N-43.

The program to date has shown that 13 freehold parcels are underlain by significant exploration targets for which further work is warranted. Additional work should include Max-Min II surveys on 12 of the 13 freehold parcels and an induced polarization/resistivity survey on N-26. Detailed magnetometer surveys should also be extended to include the additional mining claims and detailed magnetometer surveys should be carried out across all of the fault zones. Trenching and further rock geochemical sampling of the shear zone on N-17 and the sulphide-bearing quartz vein on N-40 is also recommended.

INTRODUCTION

This report was prepared for Shogrin Minerals Inc. and summarizes the results of a reconnaissance exploration program carried out on the "Stock-McCann" Block by Derry, Michener, Booth & Wahl, from May 15 to September 1, 1983.

The Stock-McCann Block is located within the Larder Lake and Porcupine Mining Divisions of the District of Cochrane approximately 50 km east of Timmins, Ontario. The block contains 29 separate freehold parcels owned by the Ontario Paper Company and under option to Shogrin Minerals Inc. The parcels are located within the townships of Stock, Taylor, Carr, Bond, Currie, Bowman, Sheraton, Egan and McCann as shown in Figure 1.

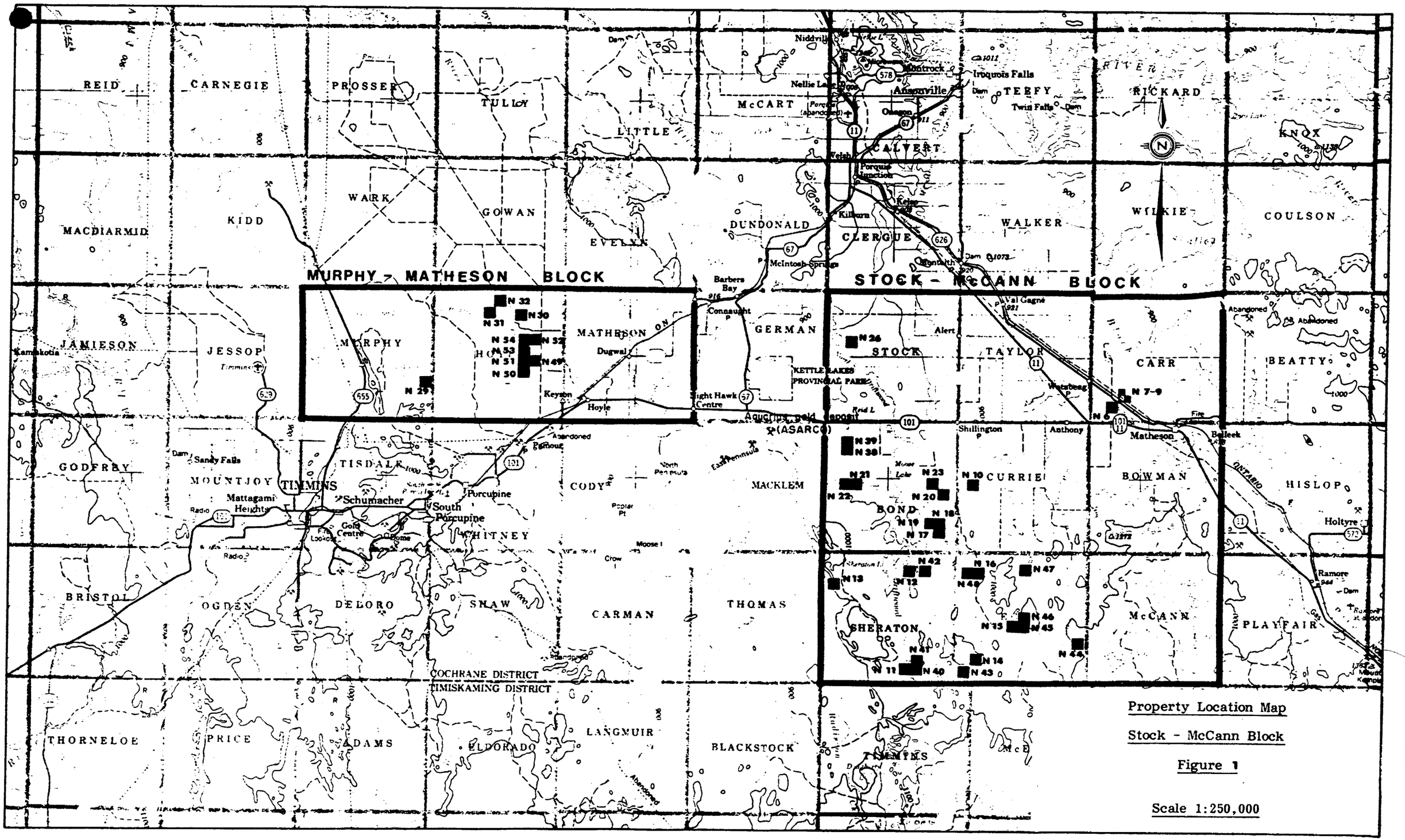
As a result of the current program, 43 additional unpatented mining claims were staked to cover extensions of promising geophysical targets outlined on blocks N-10, N-13, N-14 and N-43 (Figure 2). No work, however, was carried out on these claims.

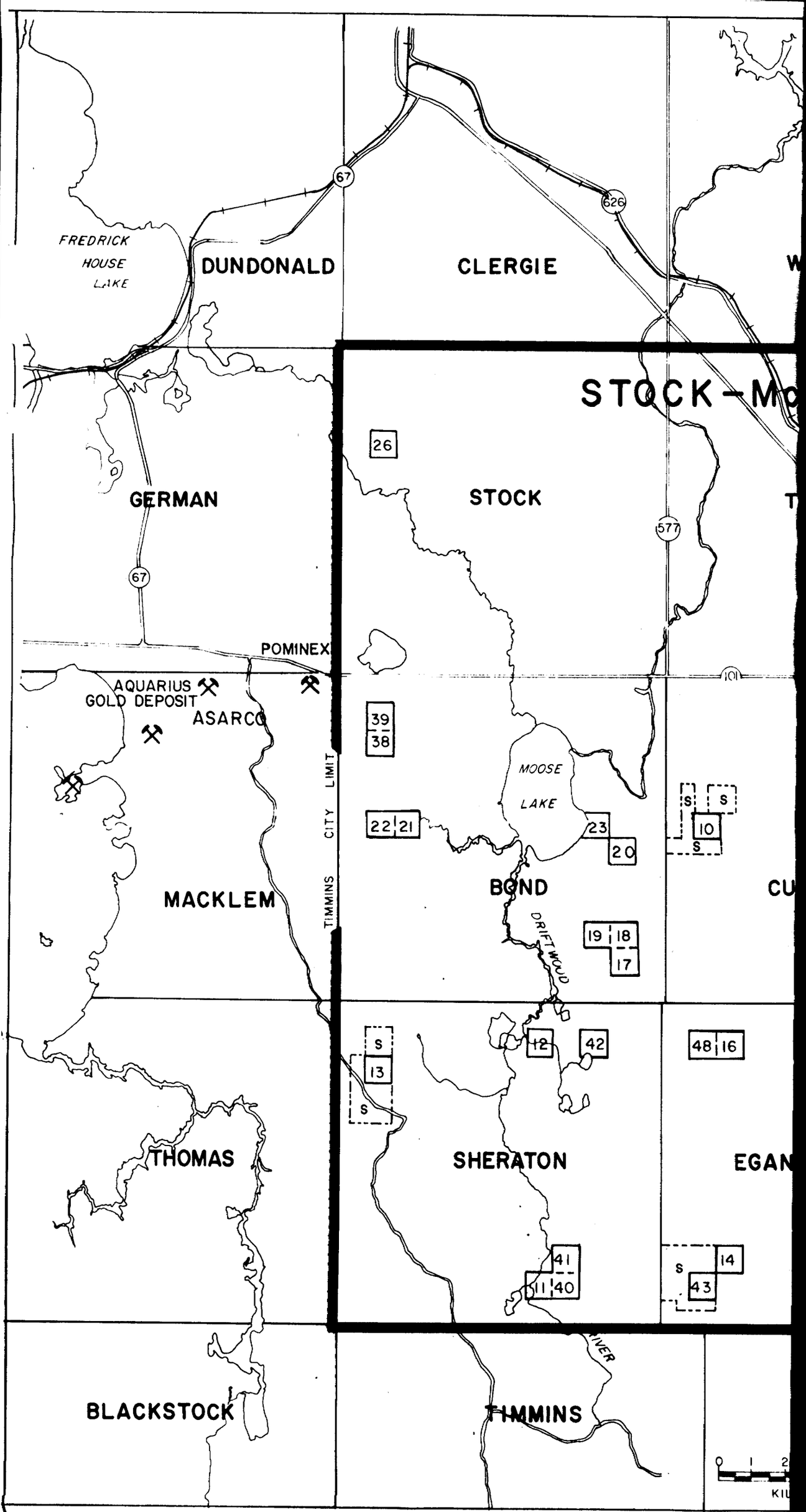
Table 1 gives a complete listing of freehold parcels and unpatented mining claims comprising the Stock-McCann Block.

Access to most of the claims is generally obtained from Highway 101 through the use of primary and secondary logging roads although in some areas a small boat and ATCs were required.

A reconnaissance program consisting of proton precession magnetometer and VLF electromagnetic surveys using compass lines at 100 m spacings with 25 m

stations was performed on all patented properties. Geological mapping and some rock geochemical sampling were also carried out but these surveys were greatly limited by the lack of outcrop due to the thick glacial cover over much of the area.


MURPHY - MATHESON BLOCK
STOCK - McCANN BLOCK
REID
CARNEGIE
PROSSER
TULLY
LITTLE
McCART
CALVERT
TEEFY
RICKARD
KNOX
WILKIE
COULSON
MACDIARMID
KIDD
WARK
GOWAN
EVELYN
DUNDONALD
CLERGUE
WALKER
JAMIESON
JESSOP
MURPHY
MATHESON
GERMAN
STOCK
TAYLOR
CARR
BEATTY
GODFREY
MOUNTJOY
TISDALE
CODY
MACKLEM
BOND
CURRIE
BOWMAN
HISLOP
BRISTOL
OGDEN
DELORO
SHAW
CARMAN
THOMAS
SHERATON
McCANN
PLAYFAIR
THORNELOE
PRICE
ADAMS
ELDORADO
LANGMUIR
BLACKSTOCK
TIMMINS
COCHRANE DISTRICT
TIMISKAMING DISTRICT
Niddrie
Moonrock
Iroquois Falls
Ansonville
Nellie Lake
Twin Falls
Dam
Porquis Junction
Kelso
Killburn
McIntosh Springs
Barbers Bay
Connaught
Val Gagné
Alert
Watabeag
Shillington
Anthony
Matheson
Belleek
Abandoned
Kamakotia
Sandy Falls
Mattagami Heights
Schumacher
Porcupine
South Porcupine
Golden Centre
Crome
Keyston
Hoyle
Dugwal
Bight Hawk Centre
KETTLE LAKES PROVINCIAL PARK
Aquarius gold deposit
(ASARCO)
Poplar Pt
Moose I
Crow
Ramore
Holtyre
N 32
N 31
N 30
N 54
N 53
N 52
N 51
N 49
N 50
N 29
N 26
N 7-9
N 6
N 39
N 38
N 21
N 22
N 23
N 20
N 10
N 18
N 19
N 17
N 42
N 13
N 12
N 16
N 47
N 48
N 46
N 45
N 15
N 44
N 41
N 11
N 40
N 14
N 43
Property Location Map
Stock - McCann Block
Figure 1
Scale 1:250,000


FREDRICK HOUSE LAKE
DUNDONALD
CLERGIE
67
626
STOCK - M
GERMAN
STOCK
26
577
67
POMINEX
101
AQUARIUS GOLD DEPOSIT
ASARCO
39
38
MOOSE LAKE
22
21
23
20
S
10
S
MACKLEM
TIMMINS CITY LIMIT
BOND
DRIFTWOOD
19
18
17
S
13
S
12
42
48
16
THOMAS
SHERATON
EGAN
41
11
40
S
14
43
BLACKSTOCK
TIMMINS
RIVER
1
2
KIL

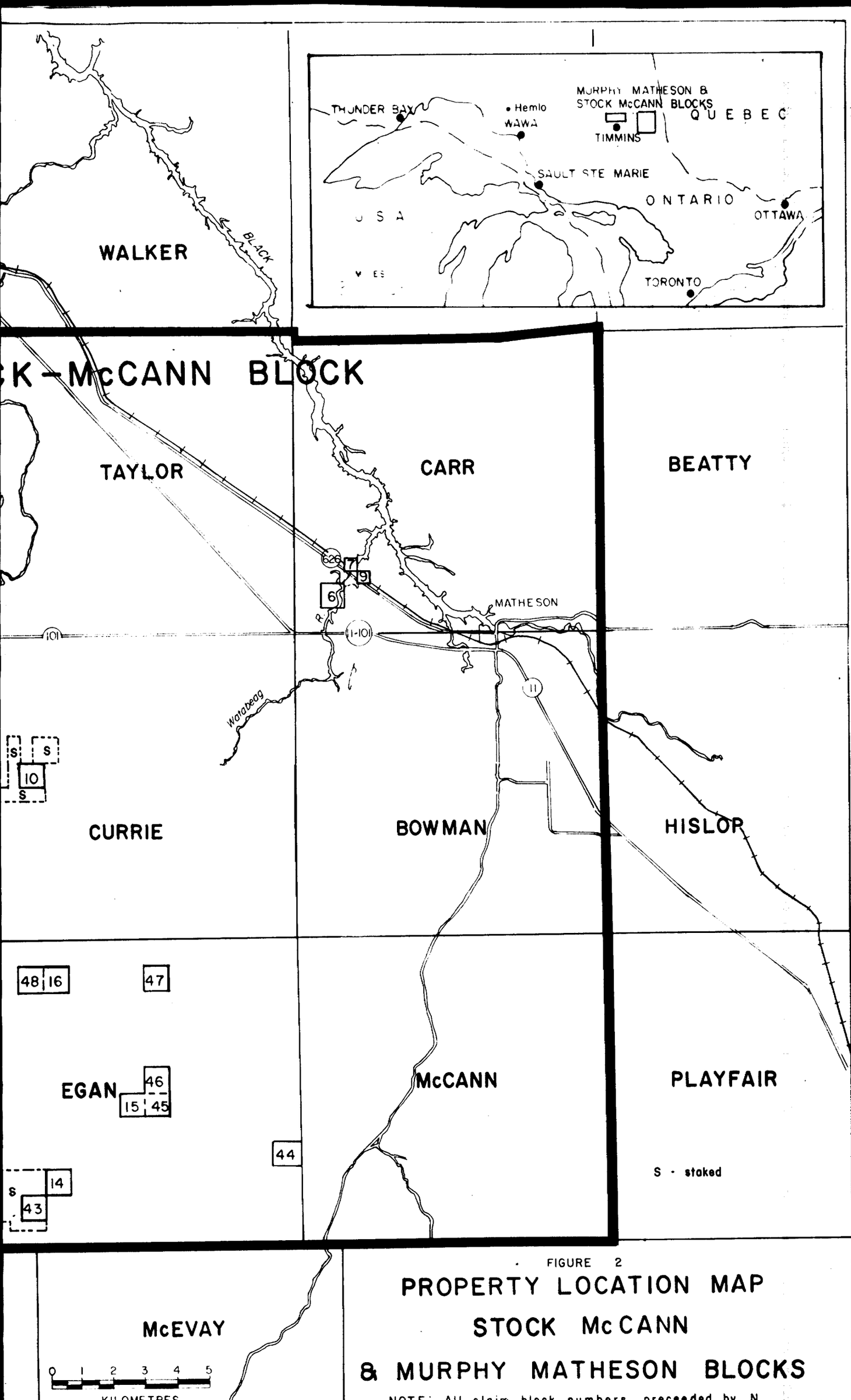


FIGURE 2

PROPERTY LOCATION MAP
STOCK McCANN
& MURPHY MATHESON BLOCKS

NOTE: All claim block numbers preceeded by N

TABLE 1

LIST OF FREEHOLD PARCELS AND MINING CLAIMS,

STOCK-MCCANN BLOCK

Freehold Parcels

N-26	Stock Township	N½ Lot 10, Con. IV, SMR*
N-6	Carr Township	N½ Lot 11, Con. I, SMR*
N-7	Carr Township	NW¼ S½ Lot 10, Con. II, SMR*
N-9	Carr Township	SE¼ S½ Lot 10, Con. II, SMR*
N-17	Bond Township	N½ Lot 2, Con. I, SMR*
N-18	Bond Township	S½ Lot 2, Con. II, SMR*
N-19	Bond Township	S½ Lot 3, Con. II, SMR*
N-20	Bond Township	N½ Lot 2, Con. III, SMR*
N-21	Bond Township	S½ Lot 10, Con. IV, SMR*
N-22	Bond Township	S½ Lot 11, Con. IV, SMR*
N-23	Bond Township	S½ Lot 3, Con. IV, SMR*
N-38	Bond Township	N½ Lot 11, Con. V, SMR*
N-39	Bond Township	S½ Lot 11, Con. VI, SMR*
N-10	Currie Township	S½ Lot 11, Con. IV, SMR*
N-11	Sheraton Township	N½ Lot 5, Con. I, SMR*
N-12	Sheraton Township	S½ Lot 5, Con. VI, SMR*
N-13	Sheraton Township	N½ Lot 11, Con. V, SMR*
N-40	Sheraton Township	N½ Lot 4, Con. I, MRO**
N-41	Sheraton Township	S½ Lot 4, Con. II, MRO**
N-42	Sheraton Township	S½ Lot 3, Con. VI, MRO**
N-14	Egan Township	S½ Lot 10, Con. II, SMR*
N-15	Egan Township	N½ Lot 7, Con. III, SMR*
N-16	Egan Township	S½ Lot 10, Con. VI, SMR*
N-43	Egan Township	N½ Lot 11, Con. I, MRO**
N-44	Egan Township	S½ Lot 1, Con. III, MRO**
N-45	Egan Township	N½ Lot 6, Con. III, MRO**
N-46	Egan Township	S½ Lot 6, Con. IV, MRO**
N-47	Egan Township	S½ Lot 6, Con. VI, MRO**
N-48	Egan Township	S½ Lot 11, Con. VI, MRO**

*SMR - Surface and Mineral Rights
**MRO - Mineral Rights Only

Mining Claims (Mineral Rights Only)

N-43, N-14	Egan Township	NE¼ S½ Lot 12, Con. I
		SE¼ N½ Lot 12, Con. I
		SW¼ N½ Lot 12, Con. I
		NW¼ N½ Lot 12, Con. I

TABLE 1
(Continued)

Mining Claims

N-43, N-14 Egan Township	NE¼ N½ Lot 12, Con. I
	SE¼ S½ Lot 12, Con. II
	SW¼ S½ Lot 12, Con. II
	NW¼ S½ Lot 12, Con. II
	NE¼ S½ Lot 12, Con. II
	SW¼ S½ Lot 11, Con. I
	NW¼ S½ Lot 11, Con. I
	SE¼ S½ Lot 11, Con. II
	SW¼ S½ Lot 11 Con. II
	NW¼ S½ Lot 11, Con. II
	NE¼ S½ Lot 11, Con. II
N-13 Sheraton Township	NE¼ N½ Lot 12, Con. IV
	SE¼ S½ Lot 12, Con. V
	NE¼ S½ Lot 12, Con. V
	SE¼ N½ Lot 12, Con. I
	NE¼ N½ Lot 12, Con. I
	NW¼ N½ Lot 11, Con. IV
	NE¼ N½ Lot 11, Con. IV
	SE¼ S½ Lot 11, Con. V
	SW¼ S½ Lot 11, Con. V
	NW¼ S½ Lot 11, Con. V
	NE¼ S½ Lot 11, Con. V
	SE¼ S½ Lot 11, Con. VI
	SW¼ S½ Lot 11, Con. VI
	NW¼ S½ Lot 11, Con. VI
	NE¼ S½ Lot 11, Con. VI
N-10 Currie Township	NW¼ N½ Lot 12, Con. III
	NE¼ N½ Lot 12, Con. III
	SE¼ S½ Lot 12, Con. IV
	NE¼ S½ Lot 12, Con. IV
	NE¼ N½ Lot 12, Con. IV
	SE¼ N½ Lot 12, Con. IV
	NW¼ N½ Lot 11, Con. III
	NE¼ N½ Lot 11, Con. III
	SE¼ N½ Lot 11, Con. IV
	NE¼ N½ Lot 11, Con. IV
	NW¼ N½ Lot 10, Con. IV
	SW¼ N½ Lot 10, Con. IV
	NW¼ N½ Lot 10, Con. IV

REGIONAL GEOLOGY

The "Stock-McCann Block" is underlain by a succession of Archean mafic to felsic metavolcanics with lesser amounts of metasediments that form part of the Deloro and Tisdale Supergroups recognized by Pyke (1983) in the Timmins area. These rocks, which strike northeast to east-west and are steeply-dipping, are separated into three major domains by the Destor-Porcupine and Pipestone Faults as shown in Figure 3. The northeasterly trending Destor-Porcupine Fault crosses the central part of the Stock-McCann Block and is an important exploration target because the majority of gold deposits in the Timmins area occur in close proximity to this stucture. The Pipestone Fault is subparallel and about 8 km north of the Destor-Porcupine Fault.

The stratigraphy within the three major domains is as follows: South of the Destor-Porcupine Fault, mafic metavolcanics predominate except in the northeast part of this region which is underlain by intermediate to felsic volcanics. North of the Destor-Porcupine Fault and south of the Pipestone Fault, metasediments including greywacke, siltstone, argillite and minor conglomerate predominate whereas north of the Pipestone Fault the stratigraphy comprises intermediate to felsic metavolcanics.

The Archean supracrustal rocks are intruded by the Bradley Lake and Wildgoose Lake syenites, of late Archean Age, as well as three separate stages of younger gabbroic dykes.

Pyke (1983) has recognized two major periods of deformation north of the Destor-Porcupine Fault that consist of an earlier phase of north-trending folds which

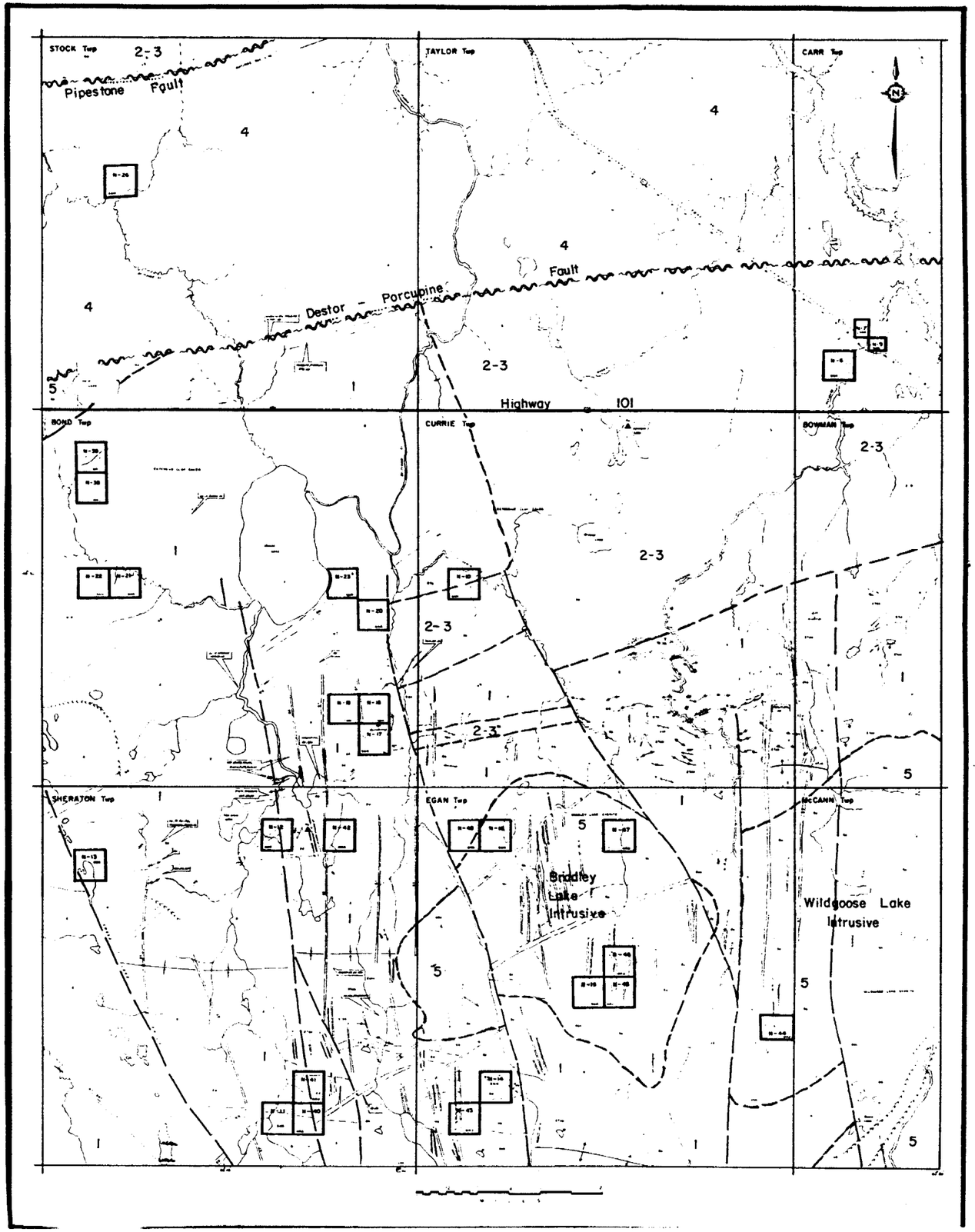


Figure 3
REGIONAL GEOLOGY
OF THE STOCK - McCANN BLOCK

LEGEND

5	Intrusives
4	Metasediments
3	Felsic metavolcanics
2	Intermediate metavolcanics
1	Mafic metavolcanics

SYMBOLS

~~	Major Fault
— —	Fault
- -	Geological Boundary
▭	Freehold area

were subsequently folded about an east-northeast trending axis. South of the Destor-Porcupine Fault, only one phase of folding with east-trending axes has been recognized.

Much of the Stock-McCann Block is covered by thick extensive glacial deposits predominantly of glaciofluvial and glaciolacustrine origin with lesser amounts of ablation and lodgment tills. Prominent eskers are present in several parts of the area most notably the Frederick House Esker on N-13. The thick glacial cover and limited outcrop have rendered exploration in the area difficult because the conductive overburden consistently masked bedrock geophysical response.

GEOPHYSICAL SURVEYS

The ground geophysical surveys were carried out during the period May 17, 1983 through August 19, 1983, inclusive, under the supervision of Mr. S. S. McRoberts, B.Sc., using a 100 metre line spacing with 25 metre stations and flag and compass lines.

The magnetometer survey was carried out using a Scintrex MP-2 total field proton precession magnetometer. The total magnetic field intensity data was recorded at elevations of 1 m above ground level with a sensitivity of $\pm$ 1 nT. Diurnal fluctuations were monitored using a Scintrex MBS-2 base station recording magnetometer and all data was adjusted accordingly. The magnetic data is presented as corrected station values above the local background of 58,000 nT and as a contoured interpretation of these data.

The VLF electromagnetic surveys were carried out using a Geonics EM-16 unit. The VLF in-phase and quadrature response parameters were recorded with an accuracy of ± 1%. The transmitting station used is located in Cutler, Maine and broadcasts at a frequency of 17.8 kHz (now 24.0 kHz). All data was plotted as line profiles at a vertical scale of 1 cm = 10%.

PROPERTY DISCUSSION

Freehold Parcels N-6, 7 and 9

Parcels N-6, 7 and 9, located about 5 km northwest of the town of Matheson in Carr Township, are directly accessible from Highway 626.

Geologically these claims are located immediately south of the Destor-Porcupine Fault and based on geophysical data are inferred to be underlain by felsic to intermediate metavolcanics.

Magnetic relief over much of the property is uniform ranging from 1,100 to 1,200 nT. Local magnetic highs of up to 2,000 nT occur on L8E at station 6+50N and on L10E station 7+00N and these anomalies probably reflect gabbro dykes. Other lower order of magnitude highs present in the southern part of N-9 most likely reflect cultural influence.

Several strong VLF conductors were outlined on N-7 and 9 (Table 2) but these reflect railway, hydro and power lines. Six weak VLF anomalies most likely reflecting conductive overburden are present on N-6.

Table 2

DESCRIPTION OF VLF-EM CONDUCTORS OF THE FREEHOLD PARCELS

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-6-1	L3E 7+50S - L8E 5+35S	east-northeast	500 continuous discontinuous	poor - fair	1050 - 1100 nT	no outcrop, probably intermediate to felsic metavolcanics	probable overburden conductor	low
N-6-2	L4E 6+10S - L5E 5+60S	east-northeast	100 discontinuous	poor	1050 - 1100 nT	no outcrop, probably intermediate to felsic metavolcanics	probable overburden conductor	low
N-6-3	L0E 5+15S - L1E 4+85S	east-northeast	100 discontinuous	poor - fair	1050 - 1100 nT	no outcrop, probably intermediate to felsic metavolcanics	probable overburden conductor	low
N-6-4	L8E 3+25S	east-west	point anomaly	fair	1000 nT	no outcrop, probably intermediate to felsic metavolcanics	probable overburden conductor	low
N-6-5	L6E 1+75S - L7E 1+15S	northeast	100 discontinuous	fair	1050 nT	no outcrop, probably intermediate to felsic metavolcanics	probable overburden conductor	low
N-6-6	L2E 1+75S	east-west	point anomaly	fair	1050 - 1100 nT	no outcrop, probably intermediate to felsic metavolcanics	probable overburden	low
N-7,8,9-1	L8E - 4+00N - L11E 0+50N	southeast	400 continuous	excellent	900 - 1100 nT	no outcrop, probably intermediate to felsic metavolcanics	gas pipeline	low
N-7,8,9-2	L9E 4+25N - L15E 0+00N	southeast	900 continuous	excellent	800 - 1100 nT	no outcrop, probably intermediate to felsic metavolcanics	railway	low
N-7,8,9-3	L10E 7+50N - L16E 2+60N	southeast	700 continuous	excellent	800 - 1100 nT	no outcrop, probably intermediate to felsic metavolcanics	gas pipeline	low

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-10-1	L1E 1+15N	east-west	100 continuous	poor	1100 - 1200 nT	no outcrop, probably intermediate to felsic ash tuff, lapilli tuff	possible overburden conductor	low
N-10-2	L4E 6+35N	east-west	point anomaly	fair	1000 - 1200 nT	no outcrop, probably intermediate to felsic ash tuff lapilli tuff	possible overburden conductor	low
N-10-3	L6E 7+10N - L8E 6+10N	east-southeast	300 continuous	fair	1200 - 1300 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-10-4	L6E 6+85N - L7E 7+05N	east-west	100 continuous	average	1200 - 1300 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	102
N-11-1	L3E 0+25S	east-west	point anomaly	poor	1900 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low
N-11-2	L6E 0+40S	east-west	point anomaly	poor	2000 - 2100 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low
N-11-3	L4E 1+10S	east-west	point anomaly	poor	1900 - 2000 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low
N-11-4	L1E 2+05S - L2E 2+10S	east-west	100 discontinuous	poor	1900 - 2000 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low
N-11-5	L3E 2+90S - L9E 1+50S	east-northeast	650 discontinuous	poor - fair	1200 - 1800 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low
N-11-6	L1E 4+60S - L3E 4+15S	east-northeast	200 discontinuous	poor	1100 - 1300 nT	no outcrop, probably mafic metavolcanics	along edge of hill, probably overburden conductor	low

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-11-7	L2E 5+10S - L3E 4+90S	east-west	150 discontinuous	poor - fair	1100 - 1200 nT	no outcrop, probably mafic metavolcanics	possible overburden conductor	low
N-11-8	L3E 5+35S - L4E 5+25S	east-west	100 discontinuous	poor	1000 - 1100 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-11-9	L3E 5+90S	east-west	point anomaly	poor	1000 - 1100 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-11-10	L0E 6+65S - L2E 6+85S	east-west	200 discontinuous	poor - fair	1000 - 1200 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-40-1	L14E 0+20S - L17E 0+25N	east-west	300 discontinuous	poor - fair	2200 - 3200 nT	mafic dyke	probable magnetite in mafic dyke	low
N-40-2	L16E 0+90S	east-west	point anomaly	poor	1000 - 4000 nT	mafic dyke	probable magnetite in mafic dyke	low
N-40-3	L10E 3+30S - L12E 3+50S	east-west	200 discontinuous	poor	1200 - 1400 nT	no outcrop, probably mafic dyke	probable overburden conductor	low
N-40-4	L10E 4+10S - L11E 4+25S	east-west	100 discontinuous	poor	1200 - 1300 nT	no outcrop, probably mafic dyke	probable overburden conductor	low
N-40-5	L10E 7+40S	east-west	point anomaly	average	900 - 1000 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-41-1	L14E 0+60N - L15E 0+60N	east-west	100 discontinuous	poor	3500 - 5000 nT	no outcrop, probably mafic dyke	probable magnetite in mafic dyke	low
N-41-2	L8E 0+85N	east-west	point anomaly	poor	1400 - 1500 nT	no outcrop, probably mafic dyke	probable magnetite in mafic dyke	low
N-41-3	L8E 1+50N - L15E 1+80N	east-west	700 discontinuous	poor - good	900 - 5000 nT	no outcrop, probably mafic dyke	along edge of hill, possible overburden	low
N-41-4	L16E 2+15N L17E 1+40N	northeast	100 discontinuous	poor - fair	800 - 1500 nT	no outcrop, probably a mafic dyke	possible bedrock conductor	moderate
N-41-5	L8E 4+65N - L13E 2+10N	southeast	550 discontinuous	poor	1800 - 3500 nT	no outcrop, probably mafic dyke	along edge of hill, possible overburden	low
N-41-6	L12E 3+10N	east-west	point anomaly	poor	1400 - 1500 nT	no outcrop, probably mafic dyke	probable overburden conductor	low
N-41-7	L12E 4+00N	east-west	point anomaly	poor	1300 - 1400 nT	no outcrop, probably mafic dyke	probable overburden conductor	low
N-41-8	L9E 4+75N - L13E 5+65N	northeast	400 discontinuous	fair - good	800 - 1200 nT	no outcrop, probably mafic metavolcanics	possible overburden conductor	low
N-41-9	L8E 7+05N - L9E 7+25N	east-west	100 discontinuous	fair - good	700 - 900 nT	no outcrop, probably mafic metavolcanics	possible overburden conductor	moderate
N-41-10	L12E 7+45N	east-west	point anomaly	average	800 - 900 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-12-1	L3E 4+90S - L4E 4+90S	east-west	150 continuous	poor - good	1100 - 1400 nT	no outcrop, probably mafic metavolcanics	probable magnetite in mafic dyke	low

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-12-2	L7E 3+75S	east-west	point anomaly	fair	1300 - 1400 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low
N-12-3	L2E 2+75S - L6E 2+00S	east-northeast	450 discontinuous	poor - average	1100 - 1500 nT	no outcrop, probably a mafic dyke	probable magnetite low in mafic dyke	low
N-12-4	L8E 0+40S	east-west	point anomaly	poor	1200 - 1300 nT	no outcrop, probably a mafic dyke	possible overburden conductor	low
N-13-1	L5E 3+10S - L6E 3+15S	east-west	100 continuous	poor	1100 - 1200 nT	no outcrop, probably mafic ash tuff lapilli tuff	probable overburden conductor	low
N-13-2	L2E 0+40N	east-west	point anomaly	poor	1200 - 1250 nT	no outcrop, probably mafic ash tuff, lapilli tuff	probable overburden conductor	low
N-13-3	L4E 0+00N - L5E 0+00N	east-west	100 continuous	poor	1175 - 1200 nT	no outcrop, probably mafic ash tuff, lapilli tuff	probable overburden conductor	low
N-14-1	L15E 6+25N - 7+75N L20E 5+75N - 7+10N	east-west	500 continuous	poor - good	-200 - 700 nT	probably mafic ash tuff, lapilli tuff	probable stratiform unit	high
N-14-2	L13E 4+65N	east-west	point anomaly	poor	100 - 200 nT	mafic metavolcanics	possible bedrock conductor	low
N-14-3	L13E 2+60N	east-west	point anomaly	poor	500 nT	mafic metavolcanics	possible bedrock conductor	low
N-14-4	L13E 1+50N - L15E 0+85N	southeast	200 discontinuous	poor - fair	100 - 1000 nT	no outcrop, probably mafic metavolcanics	along edge of hill - possible overburden conductor	low
N-43-1	L3E 7+90S - L12E 5+85S	east-northeast	1000 discontinuous continuous	average-excellent	400 - 2000 nT	mafic flows	possible overburden conductor	moderate

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-43-2	L6E 4+75S - L8E 4+40S	east-west	200 continuous	poor	1400 nT	possible iron formation	probable magnetite in possible iron formation	moderate
N-43-3	L8E 3+35S	east-west	200 continuous	poor	2200 - 6000 nT	possible iron formation	probable magnetite in possible iron formation	moderate
N-43-4	L4E 4+15S	east-west	point anomaly	poor	700 - 800 nT	mafic flows and possible fault mafic dyke	possible fault zone	high
N-43-5	L2E 4+15S L3E 4+75S	southeast	150 continuous	poor	1500 - 1600 nT	mafic dyke	possible magnetite in mafic dyke	low
N-43-6	L0E 3+15S L2E 3+75S	southeast	250 continuous	poor	900 - 1300 nT	mafic dyke	possible edge effect of iron formation	moderate
N-43-7	L3E 2+50S L4E 2+40S	east-west	100 discontinuous	poor	2700 - 6000 nT	possible iron formation	probable magnetite in possible iron formation	moderate
N-43-8	L3E 3+10S L4E 3+00S	east-west	100 discontinuous	poor	5800 - 6500 nT	possible iron formation	probable magnetite in possible iron formation	moderate
N-43-9	L3E 1+25S L5E 0+90S	east-west	200 continuous	poor	1100 - 11,000 nT	no outcrop, probably iron formation	probable magnetite in possible iron formation	moderate
N-43-10	L0E 0+75S L8E 0+00S	east-west	800 continuous	poor - good	1000 - 10,000 nT	iron formation and mafic metavolcanics	probable magnetite in possible iron formation	high
N-43-11	L7E 1+25S	east-west	point anomaly	poor	1500 - 1600 nT	no outcrop, probably mafic volcanics	possible fault	moderate

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-43-12	L8E 0+65S	east-west	100 continuous	poor - average	2000 - 2800 nT	no outcrop, probably mafic volcanics	possible fault and probable bedrock conductor	moderate
N-43-13	L10E 0+65S	east-west	point anomaly	poor	1100 - 1300 nT	no outcrop, probably mafic metavolcanics	probable bedrock conductor	moderate
N-43-14	L11E 1+85S	east-west	point anomaly	poor	1000 - 1200 nT	no outcrop, probably mafic volcanics	probable bedrock conductor	moderate
N-16-1	L3W 0+75N - L1W 0+90N	east-west	200 dis-continuous	poor - average	1200 - 1800 nT	no outcrop, probably granite	possible bedrock conductor	moderate
N-16-2	L3W 1+25N - L4W 1+45N	east-west	100 dis-continuous	fair - good	1400 - 1900 nT	no outcrop, probably granite	possible bedrock conductor	moderate
N-16-3	L3W 3+25N L1W 4+25N	northeast	200 continuous	poor - fair	1600 - 2100 nT	no outcrop, probably granite	along edge of hill - possible overburden conductor	low
N-16-4	L3W 4+40N L1W 4+65N	east-west	200 continuous	poor	1300 - 1500 nT	no outcrop, probably granite	along edge of hill - possible overburden conductor	low
N-16-5	L1W 6+85N	east-west	point anomaly		2400 - 2600 nT	no outcrop, probably granite	possible magnetite in mafic dyke	low
N-16-6	L5W 6+85N	east-west	point anomaly	poor	2700 - 3100 nT	no outcrop, probably mafic dyke	possible magnetite in mafic dyke	low
N-16-7	L2W 7+80N L1W 7+85N	east-west	100 dis-continuous	poor	2200 - 3000 nT	no outcrop, probably granite	possible magnetite in mafic dyke	low

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-16-8	L2W 8+30N L1W 8+35N	east-west	100 discontinuous	poor	2000 - 2500 nT	no outcrop, probably granite	possible magnetite in mafic dyke	low
N-16-9	L1W 9+65N	east-west	point anomaly	poor	2500 - 3000 nT	no outcrop, probably mafic dyke	possible magnetite in mafic dyke	low
N-16-10	L5W 10+00N L3W 10+00N	northeast	100 continuous	average	1200 - 1500 nT	no outcrop, probably mafic dyke	possible magnetite in mafic dyke	low
N-48-1	L15W 0+45N	east-west	point anomaly	fair	1100 - 1200 nT	no outcrop, probably mafic metavolcanic	probable magnetite in mafic dyke	low
N-48-2	L15W 2+00N	east-west	point anomaly	poor	1400 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-48-3	L14W 4+40N L16W 5+10N	southeast	200 discontinuous	poor - average	1100 - 1500 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-48-4	L11W 6+25N	east-west	point anomaly	fair	1200 - 1300 nT	no outcrop, probable mafic metavolcanics	possible overburden conductor	low
N-48-5	L10W 3+20N	east-west	point anomaly	fair	2500 T	no outcrop, probably mafic metavolcanics	possible overburden conductor	low
N-48-6	L7W 2+65N	east-west	point anomaly	fair	3000 - 3100 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-17-1	L8W 6+00S L5W 6+10S	east-west	300 discontinuous	fair - good	800 - 2500 nT	mafic dyke	probable magnetite in mafic dyke	high
N-17-2	L7W 5+50S L5W 5+50S	east-west	200 discontinuous	fair - average	1200 - 1800 nT	mafic dyke	probable magnetite in mafic dyke	high

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-17-3	L6W 4+75S L5W 4+40S	east-northeast	100 continuous	fair-average	2500 - 3000 nT	mafic dyke	probable magnetite in mafic dyke	high
N-17-4	L8W 5+10S L5W 3+75S	north-east	350	poor-good	1000 - 5000 nT	mafic dyke	probable magnetite in mafic dyke	high
N-17-5	L7W 3+90S	east-west	point anomaly	good	1500 - 2000 nT	mafic dyke	probable magnetite in mafic dyke	high
N-17-6	L8W 3+50S	east-west	point anomaly	average	1000 nT	mafic dyke	probable magnetite in mafic dyke	high
N-17-7	L4W 2+15S	east-west	point anomaly	fair	1000 - 2500 nT	mafic dyke	probable magnetite in mafic dyke	high
N-17-8	L6W 1+85S L3W 1+85W	east-west	300 discontinuous	poor-average	1500 - 2500 nT	mafic dyke	probable magnetite in mafic dyke	high
N-17-9	L0 1+65S	east-west	point anomaly	poor	1200 nT	no outcrop, probably mafic dyke	probable overburden conductor	low
N-17-10	L0 1+15S	east-west	point anomaly	poor	1200 nT	no outcrop, probably mafic dyke	probable overburden conductor	low
N-17-11	L7W 1+30S	east-west	point anomaly	poor	800 nT	mafic dyke	probable magnetite in mafic dyke	low
N-17-12	L2W 0+90S	east-west	point anomaly	poor	2000 nT	no outcrop, probably mafic dyke	probable overburden conductor	low

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-17-13	L4W 0+65S L0 0+50N	northeast	400 discontinuous	poor - average	1600 - 2300 nT	no outcrop, probably mafic dyke	along edge of hill, possible overburden conductor	low
N-17-14	L7W 0+35S L5W 0+10N	east-west	200 discontinuous	poor - fair	600 - 1500 nT	no outcrop, probably mafic dyke	probable magnetite in mafic dyke	low
N-18-1	L7W 1+90N L0 1+10N	east-west	700 discontinuous	poor - fair	1000 - 2500 nT	gabbro dyke	probable magnetite in gabbro dyke	low
N-18-2	L4W 2+15N L0 3+15N	east-northeast	400 discontinuous	poor - average	1000 - 3000 nT	no outcrop, probably mafic dyke	possible magnetite in mafic dyke	moderate
N-18-3	L7W 2+60N L0 3+75N	east-northeast	750 discontinuous	poor - average	1300 - 2700 nT	no outcrop, probably mafic dyke	possible magnetite in mafic dyke	moderate
N-18-4	L10W 4+40N L3W 4+00N	east-west	800 discontinuous	poor - good	1000 - 1500 nT	gabbro dyke	probable magnetite in gabbro dyke	moderate
N-18-5	L6W 4+10N L5W 4+10N	east-west	100	poor	1100 - 1500 nT	no outcrop, possible mafic dyke	possible magnetite in mafic dyke	low
N-18-6	L2W 4+90N L0 4+30N	east-southwest	200	poor - average	1000 - 3200 nT	no outcrop, probable mafic dyke	probable magnetite in mafic dyke	low
N-18-7	L1W 5+60N L0 5+25N	east-southwest	100	poor	1400 - 2500 nT	no outcrop, probable mafic dyke	probable magnetite in mafic dyke	low
N-18-8	L2W 6+35N L1W 6+85N	east-west	100	poor - fair	1000 - 1400 nT	no outcrop, probable mafic dyke	probable magnetite in mafic dyke	low

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-19-1	L11W 0+75N	east-west	point anomaly	poor	1100 nT	no outcrop, probable mafic metavolcanics	probable overburden conductor	low
N-19-2	L16W 2+00N	east-west	point anomaly	fair	1100 nT	no outcrop, probable mafic metavolcanics	probable overburden conductor	low
N-19-3	L14W 5+00N	east-west	point anomaly	poor	1200 nT	no outcrop, probable mafic metavolcanics	probable overburden conductor	low
N-19-4	L10W 5+25N	east-west	point anomaly	poor	2000 nT	no outcrop, probable mafic dyke	probable magnetite in mafic dyke	low
N-19-5	L13W 6+65N	east-west	point anomaly	poor	1200 nT	no outcrop, probable mafic metavolcanics	probable overburden conductor	low
N-19-6	L14W 7+65N	east-west	point anomaly	poor	1300 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-20-1	L13E 7+15S	east-west	point anomaly	poor	1600 - 1700 nT	no outcrop, probably mafic dyke	probable overburden conductor	low
N-20-2	L10E 4+85S	east-west	point anomaly	poor	1600 - 1700 nT	no outcrop, probably a mafic dyke	probable overburden conductor	low
N-20-3	L8E 4+75S	east-west	point anomaly	poor	1600 - 1700 nT	no outcrop, probably a mafic dyke	probable overburden conductor	low
N-20-4	L8E 3+75S L9E 2+90S	northeast	100 discontinuous	poor	1600 - 1800 nT	no outcrop, probably a mafic dyke	probable overburden conductor	low
N-20-5	L13E 3+25S	east-west	point anomaly	fair	1700 - 2400 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-20-6	L8E 2+65S L13E 2+65S	east-west	500 discontinuous	poor	1400 - 2500 nT	no outcrop, probably a mafic dyke	probable overburden conductor	low
N-20-7	L14E 1+60S	east-west	point anomaly	poor	1600 nT	no outcrop, probably a mafic dyke	probable overburden conductor	low
N-20-8	L16E 1+75S	east-west	point anomaly	poor	1200 - 1300 nT	no outcrop, probably a mafic dyke	probable overburden conductor	low
N-20-9	L8E 0+60S L10E 0+15S	east-northeast	250 discontinuous	fair - average	2000 - 2600 nT	no outcrop, probably mafic dyke	probable magnetite in mafic dyke	moderate
N-23-1	L1E 1+00N L4E 1+15N	east-west	300 discontinuous	poor	900 - 1500 nT	mafic dyke	probable magnetite in mafic dyke	low
N-23-2	L1E 1+90N L4E 1+90N	east-west	300 discontinuous	poor	1100 - 2100 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low
N-23-3	L8E 1+90N	east-west	point anomaly	average	1600 - 2100 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low
N-23-4	L8E 2+40N	east-west	point anomaly	fair	1200 - 1300 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low
N-23-5	L2E 5+65N L3E 5+10N	southeast	100 discontinuous	poor	1300 - 1800 nT	no outcrop, probably a mafic dyke	possible overburden	low
N-23-6	L7E 6+35N	east-west	point anomaly	poor	1400 nT	no outcrop, probably a mafic metavolcanic	probable overburden conductor	low
N-22-1	L1E 0+90N L2E 1+00N	east-west	100 continuous	poor	1200 nT	no outcrop, probably mafic metavolcanics	along edge of hill probably overburden	low
N-22-2	L3E 3+95N L4E 4+15N	east-west	100 continuous	good	1800 - 2100 nT	no outcrop, probably mafic dyke	possible magnetite in gabbro dyke	low

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-22-3	L0E 3+50N L2E 4+35N	east-northeast	200 continuous	poor - fair	1200 - 1300 nT	no outcrop, probably mafic metavolcanics	probable over-burden conductor	low
N-22-4	L1E 6+65N L4E 5+50N	east-southeast	300 continuous	poor - excellent	1250 - 1400 nT	no outcrop, probably mafic metavolcanics	possible bedrock conductor	high
N-26-1	L7E 3+15N	east-west	point anomaly	poor	1100 - 1200 nT	no outcrop, probably metasediments	probable over-burden conductor	low
N-26-2	L3E 4+90N	east-west	point anomaly	average	1100 - 1200 nT	no outcrop, probably metasediments	probable over-burden conductor	low
N-26-3	L8E 5+90N	east-west	point anomaly	poor	1100 - 1200 nT	no outcrop, probably metasediments	probable over-burden conductor	low
N-26-4	L8E 7+00N	east-west	point anomaly	poor	1100 - 1200 nT	no outcrop, probably metasediments	probable over-burden conductor	low
N-38-1	L5W 1+15S L7W 1+00S	east-west	200 dis-continuous	poor - fair	1500 - 1600 nT	no outcrop, probably mafic metavolcanics	probable over-burden conductor	low
N-38-2	L6W 2+40S	east-southeast	point anomaly	fair	1500 - 1600 nT	no outcrop, probably mafic meta-volcanics	probable over-burden conductor	low
N-38-3	L4W 2+80S L2W 3+90S	east-southeast	200 dis-continu-ous	fair	1500 - 1600 nT	no outcrop, probably mafic metavolcanics	probable over-burden conductor	low
N-38-4	L6W 4+25S L3W 5+85S	southeast	300 dis-continu-ous	poor	1400 - 1700 nT	no outcrop, probably mafic metavolcanics	probable over-burden conductor	low
N-38-5	L5W 7+25S	east-west	point anomaly	poor	1600 - 1700 nT	no outcrop, probably mafic metavolcanics	probable over-burden conductor	low
N-38-6	L0W 6+00S	east-west	point anomaly	poor	1400 nT	no outcrop, probably mafic metavolcanics	probable over-burden conductor	low

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-44-1	L7W 4+65S	east-west	point anomaly	good	1100 - 1600 nT	gabbro dyke	possible magnetite in gabbro dyke	low
N-47-1	L3W 0+90S L4W 1+40S	southeast	100 continuous	poor	1200 - 1400 nT	no outcrop, probably gabbroic dyke	probable magnetite in gabbroic dyke	low
N-47-2	L0 3+65S L1W 3+75S	east-west	100 continuous	poor	1000 - 1200 nT	no outcrop, probably a gabbroic dyke	probable magnetite in a gabbroic dyke	low
N-47-3	L0 4+90S L1W 4+65S	east-northeast	100 continuous	poor	1100 - 1300 nT	no outcrop, probably a gabbroic dyke	probable magnetite in a gabbroic dyke	low
N-47-4	L2W 7+25S	east-west	point anomaly	fair	1200 - 1300 nT	no outcrop, probably a gabbroic dyke	probable magnetite in a gabbroic dyke	low
N-47-5	L5W 6+65S	east-west	point anomaly	poor	1000 nT	no outcrop, probably syenite	probably an overburden conductor	low
N-47-6	L6W 7+40S L7W 7+70S	east-southeast	100 continuous	fair	1000 - 1600 nT	no outcrop, probably a gabbroic dyke	probably magnetite in gabbroic dyke	low
N-47-7	L6W 6+65S	east-west	point anomaly	fair	1000 - 1100 nT	no outcrop, probably a gabbroic dyke	probable magnetite in gabbroic dyke	low
N-47-8	L7W 5+90S L8W 6+80S	southeast	100 continuous	poor	1400 - 1600 nT	no outcrop, probably a gabbroic dyke	probable magnetite in gabbroic dyke	low
N-47-9	L7W 3+50S L8W 3+90S	southeast	100 continuous	fair	1400 - 1700 nT	no outcrop, probably a gabbroic dyke	probable magnetite in gabbroic dyke	low

Table 2
(Continued)

Conductor Number	Location	Strike	Length (m)	Conductivity	Magnetic Association	Geology	Comments	Priority
N-38-7	L1W 0+65S	east-west	point anomaly	fair	1500 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-39-1	L8W 0+15N L7W 0+10N	east-west	100 discontinuous	poor	1600 - 1800 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-39-2	L7W 2+15N	east-west	point anomaly	fair	2500 - 2900 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-39-3	L2W 2+60N	east-west	point anomaly	poor	1700 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-39-4	L0W 4+35N	east-west	point anomaly	poor	1600 - 1700 nT	no outcrop, probably gabbro dyke	probable overburden conductor	low
N-39-5	L7W 6+35N	east-west	point anomaly	fair	1300 - 1400 nT	no outcrop, mafic metavolcanics, metavolcanics	possible overburden conductor	low
N-39-6	L8W 7+00N L3W 6+85N	east-west	500 discontinuous	poor - fair	1300 - 1600 nT	no outcrop, probably mafic metavolcanics	probable magnetite in mafic dyke	low
N-39-7	L6W 7+80N	east-west	point anomaly	poor	1500 - 1600 nT	no outcrop, probably mafic metavolcanics	probable overburden conductor	low
N-42-1	L5E 1+00S L7E 1+35S	east-west	250 discontinuous	poor - fair	900 - 1600 nT	no outcrop, probably a mafic dyke	probable overburden conductor	low
N-42-2	L6E 4+10E	east-west	point anomaly	average	900 - 1100 nT	no outcrop, probably a mafic dyke	probable overburden conductor	low
N-42-3	L0 4+35S	east-west	point anomaly	fair	900 - 1000 nT	no outcrop, probably a mafic dyke	probable bedrock conductor	moderate
N-42-4	L1E 5+65S	east-west	point anomaly	poor	1300 nT	no outcrop, probably a mafic dyke	possible overburden conductor	
N-42-5	L0 6+65S L1E 6+50S	east-west	100 discontinuous	poor - fair	900 - 1300 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low
N-42-6	L0 7+25S L1E 7+15S	east-west	100 discontinuous	poor	1200 - 1600 nT	no outcrop, probably a mafic dyke	probable magnetite in mafic dyke	low

The thick glacial overburden and excessive cultural influence greatly limited the effectiveness of the geophysical surveys. Nevertheless the uniform flat magnetic response suggests a lack of favourable structure and stratigraphy for gold mineralization hence no further work is recommended.

Freehold Parcel N-10

Parcel N-10, located in west Currie Township, is accessible from Highway 101 via the township boundary road between Currie and Bond Townships.

Based on geophysical data, N-10 is probably underlain by mafic metavolcanics in the north and intermediate to felsic metavolcanics in the south. The contact between these two units is interpreted to strike east-northeast and the units appear to be steeply-dipping.

Two, 150 to 300 m wide, magnetic highs (1,500 to 1,600 nT) (L3E-6+00N; L8E-2+00N) with flanking magnetic lows (1,100 to 1,200 nT) (L2E-7+00N; L7E-1+00N) about 100 m wide are present in the northwest and southeast portions of the property. The magnetic highs are probably gabbro dykes and the associated magnetic lows may be dipoles related to these dykes. However, the magnetic lows may also represent alteration associated with these dykes and this possibility warrants further investigation.

Four weak to moderate VLF-EM conductors occur in the northeast and southwest corners of the property (Table 2) and these appear to reflect conductive overburden.

An additional 10 unpatented mining claims have been acquired to cover possible extensions of the magnetic lows and it is recommended that a Max-Min II survey be carried out using north-south oriented lines across both N-10 and the newly acquired claims. A more detailed magnetometer survey should also be performed on the areas of magnetic lows on N-10 as well as extending the existing coverage over the newly acquired mining claims.

Freehold Parcels N-11, 40 and 41

Parcels N-11, 40 and 41 are located in southeast Sheraton Township. Access is available from Highway 101, via Gibson Lake Road for 23 km, and then a secondary logging road for a further 3 km.

These blocks are underlain by mafic metavolcanics principally ash and lapilli tuff, as well as probable flows. An 800 m wide ash and lapilli tuff horizon trends east across N-41 and the northern portion of N-11 and 40. The probable mafic flows are restricted to the northern-most portion of N-41 and the southern portion of N-11 and 40. A major, 200 - 500 m wide, geophysically interpreted gabbro dyke occurs along the northern boundary of N-11 and 40. A small exposure of this dyke is present near the northeast corner of N-40. Two phases of gabbro dykes are present in this outcrop as shown by crosscutting relationships. A second gabbro dyke, approximately 300 m wide, trends northeast across the southeast corner of N-40 as shown by a high magnetic relief. Two smaller, 100 m wide, north-trending gabbro dykes occur along the east boundary and are exposed in the northeast corner of N-41.

A north-trending geophysically inferred fault shown by a sharp break in the magnetic pattern near L9E bisects the property. This break extends south from the gabbro dyke where it is outlined by a large, 300 m wide, low which may reflect alteration associated with this fault. Only limited displacement appears to have occurred along this fault.

Several moderately strong conductors were outlined of which N-41-4 and N-41-9 are the most significant possible bedrock conductors within a mafic metavolcanic sequence. A number of other conductors were also located but these are probably a result of conductive overburden or are associated with gabbro dykes.

Four grab samples were collected from the limited outcrop on N-11, 40 and 41 and these returned low gold values (less than or equal to 10 ppb). However, one of two quartz veins sampled which contained pyrite and chalcopyrite returned 33.3 ppm arsenic, 70 ppm copper, 190 ppm zinc and 1,260 ppm lead. These values require further follow up work to assess their significance.

It is recommended that 16 mining claims be acquired to cover possible extensions of the northwest-trending fault zone and the sulphide-bearing quartz vein. A Max-Min II survey should be carried out using east-west cut lines across both patened and unpatened mining claims to explore the fault zone and the mineralized quartz vein. The magnetometer survey should be extended to the unsurveyed ground and a detailed magnetometer survey should be carried out across the fault zone. Trenching and further geochemical sampling of the sulphide-bearing quartz vein should also be carried out.

Freehold Parcel N-12

Claim block N-12 is located in northeast Sheraton Township and access is available through the use of a township road, lakes and rivers in the area as follows: From Highway 101, travel approximately 2.5 km on Bond Bond Road 1, then follow the Driftwood River west for approximately 1 km. Upon arriving on Moose Lake travel to the southeast end. Finally continue along the Driftwood River towards Sheraton Lake for approximately 6.5 km until the property is reached.

Property N-12 is underlain by mafic ash and lapilli tuff. A large, 200 m wide, geophysically inferred gabbroic dyke trends northeast across the northwest part of the block and is truncated by a north-trending fault which bisects the property. Two, 100 to 150 m wide, north-trending gabbroic dykes shown as magnetic highs crosscut the block. A 100 m wide magnetic low occurs in the northwest corner of the property and could indicate an alteration zone. A second 100 m wide magnetic low occurs just north of the large, 200 m wide gabbro dyke and in close proximity to the north-trending fault. This magnetic low could be either alteration associated with the fault or a dipole of the adjacent magnetic high. A gold occurrence shown on the Ontario Geological Survey Map 2205 occurs approximately 400 m to the east of the property.

Four weak to moderately strong VLF-EM conductors exist but these are either associated with the gabbro dyke or the overburden.

Therefore, it is recommended that nine mining claims be staked to cover possible extensions of the fault and magnetic lows and to include the gold showing to the east. A Max-Min II survey using east-west cut lines should then be carried

out across both the patented lot and the mining claims. A detailed magnetometer survey should be run across the fault zone and an extended magnetometer survey should be carried out across the additional mining claims. Geological mapping and some geochemical sampling of the mining claims should also be carried out.

Freehold Parcel N-13

Parcel N-13 is located in northeast Sheraton Township. Excellent access is available from Highway 101 via a primary logging road (Gibson Lake Road) for approximately 13 km and then a secondary logging road (Heart Lake Road) for an approximate distance of 0.5 km.

Based on geophysical interpretation, this parcel is probably underlain by two units of metavolcanics; ash and lapilli tuff and probable mafic flows. The contact between these units strikes east-west across the southern portion of the grid and the rocks appear to be steeply dipping. A fault zone (Cross Lake Fault) shown by a truncated magnetic pattern strikes north-northeast across the west half of the parcel. Much of the property is covered by a prominent esker (Frederick House Esker) on which several sand pits have been excavated by a previous operator.

The magnetometer survey shows a complex pattern of sinuous magnetic highs and magnetic lows. The magnetic lows could represent alteration zones associated with gold mineralization in the Timmins camp.

The VLF-EM survey outlined four weak conductors which probably reflect conductive overburden. Because of the thick glacial overburden, however, it is unlikely that the VLF-EM survey would detect bedrock conductors.

Geophysical data is incomplete for the area covered by Heart Lake because readings could not be obtained during the summer program.

The possible alteration zones indicated by the sinuous magnetic pattern as well as the major Cross Lake Fault zone warrant further investigation. A Max-Min II survey and a detailed magnetometer survey using east-west cut lines should be carried out across both N-13 and the newly acquired mining claims to follow up these targets.

Freehold Parcels N-14 and 43

Parcels N-14 and 43 are located in southeast Egan Township. Access is available from Highway 101 through the use of primary and secondary logging roads. The Gibson Lake Road is followed from Highway 101 for a distance of approximately 29 km. A secondary logging road is then followed east for an approximate distance of 4.5 km. to a second logging road which is followed north for a further 4.5 km. Finally, a winter logging road is followed to the northwest corner of the property.

N-14 and 43 are underlain by predominantly foliated mafic metavolcanics including a small mafic pyroclastic unit between N-43 and N-14 in the eastern portion of the property. A large 200 - 300 m wide highly magnetic rock unit, probably gabbro dyke, trends east-southeast across the northern half of N-43. This

unit outcrops with a high level in the northwest and east-central portions of N-43. Two, 200 m wide, north-trending gabbro dykes cut the mafic metavolcanics in the southern half of N-43. Exposures of these dykes indicate that two phases of gabbro exist as shown by inclusions of one phase within the other. These gabbro dykes are not readily apparent from magnetic data because the highly magnetic unit to the north tends to mask the magnetic relief of these intrusives.

Two mineral occurrences, shown on Ontario Geological Survey Map 2205, occur near parcel N-43. The first occurrence, which is to the north of N-43, is an iron-copper showing and the other, which is 2 km to the southwest of N-43, is a gold-molybdenum showing which has been explored by a small shaft.

Ten grab samples of pyrite-bearing mafic metavolcanics and gabbroic dykes on the property were analyzed and all returned low gold (less than or equal to 20 ppb) and arsenic (less than or equal to 1.5 ppm) values.

Numerous elongated (400 to 600 m) magnetic lows occur in the northeast corner of N-14 and these magnetic lows are possible areas of alteration which may host for gold mineralization comparable to that in the Timmins camp. Similar but smaller, 25 m wide, magnetic lows occur sporadically across most of N-14.

Several small, 500 m wide, magnetic lows also exist along the margins of these magnetic highs in N-43 and these lows are probably dipoles of the magnetic highs.

Two, northeasterly-trending fault zones occur within N-43 as shown by sharp breaks in the magnetic pattern on L3E and 6E. The faults cut the highly magnetic rock unit however; only limited displacement appears to have occurred.

Numerous weak to strong VLF-EM conductors occur throughout the property (Table 2). A group of moderate to strong conductors (N-14-1) occurs in the northeast corner of N-14 and the arrangement of these conductors suggests an underlying layered rock unit with conductive lenses which could represent mineralization within alteration zones marked by the series of elongated magnetic lows. An 800 m long weak to strong VLF-EM conductor (N-43-10) occurs just north of the large, highly magnetic rock unit which could reflect possible mineralization. Weak conductors are associated with the inferred fault although the nature of the anomalies is not clear. These conductors may result from conductive clays which have infilled the fault zone or may represent mineralization within the fault. Other weak bedrock conductors appear to be associated with the highly magnetic rock unit or with gabbro dykes.

Fifteen mining claims were staked near the end of the summer program and an additional 8 mining claims should be acquired to the northeast so that all possible extensions of conductors, magnetic lows and favourable rock units can be included. It is also recommended that a Max-Min II survey, using north-south cut lines, be performed across all of the property. In addition the magnetometer survey should be extended to the newly acquired claims and a more detailed survey carried out across the fault zones.

Freehold Parcels N-15, 45 and 46

Parcels N-15, 45 and 46 are located in central Egan Township and are accessible via a trail from Currie Road 2, 5 km south of Highway 101. This trail is followed southward for an approximate distance of 10 km to the property.

Properties N-15, 45 and 46 are underlain by two phases of felsic to intermediate intrusive rocks, principally syenite and granodiorite, which have been intruded by a series of 100 m wide gabbro dykes. Prospecting of exposed outcrop, amounting to 30% of the total property, did not locate any significant mineralization.

Geophysical surveys were not carried out because of the geologically unfavourable environment for base or precious metal occurrence.

No further work is warranted on these freehold parcels.

Freehold Parcels N-16 and 48

Parcels N-16 and 48 are located in northwest Egan Township and are accessible from Highway 101 through the use of a primary logging road between Bond and Currie townships. This road is followed to the north boundary of the property which is just south of the northern boundary of Egan Township.

The property is probably underlain by mafic metavolcanics which have been intruded by the Bradley Lake Syenite. The contact between the metavolcanics to

the west and the syenite to the east appears to strike north-northeast between the two claim blocks.

Several 100 to 300 m wide magnetic highs (3,000 to 4,000 nT) occur to the east of the contact between the metavolcanics and the intrusive, and these magnetic highs may represent migmatites or roof pendants which form a transition zone between the metavolcanics and syenite. Magnetic lows that occur along the margins of the magnetic highs are probably dipoles of these magnetic highs. A moderate anomaly (approximately 1,500 nT) occurs along the west boundary of the property and probably reflects a gabbro dyke.

VLF-EM conductors are generally weak to moderately strong but all appear to be related to conductive overburden, topographic effects, diabase dyke or migmatites.

The thick glacial overburden limited the overall effectiveness of the geophysical surveys. Nevertheless, the eastern portion of the property appears to lack favourable lithologies for base or precious metal mineralization, based on magnetic interpretation. The magnetic survey on the west half of the claims did not outline any potential alteration or fault zones although the area is underlain by mafic metavolcanics. Therefore, it is recommended that no further work be carried out on these parcels.

Freehold Parcels N-17, 18 and 19

Parcels N-17, 18 and 19, located in southeast Bond Township, can be reached from Bond Road 1, 2.5 km south of Highway 101. From there follow the Driftwood River southeast for 1.8 km. Upon arriving at the junction of the Driftwood River and the Little Driftwood River, travel south on the Little Driftwood River for 4.5 km. A trail from the creek leads to the base line of the property.

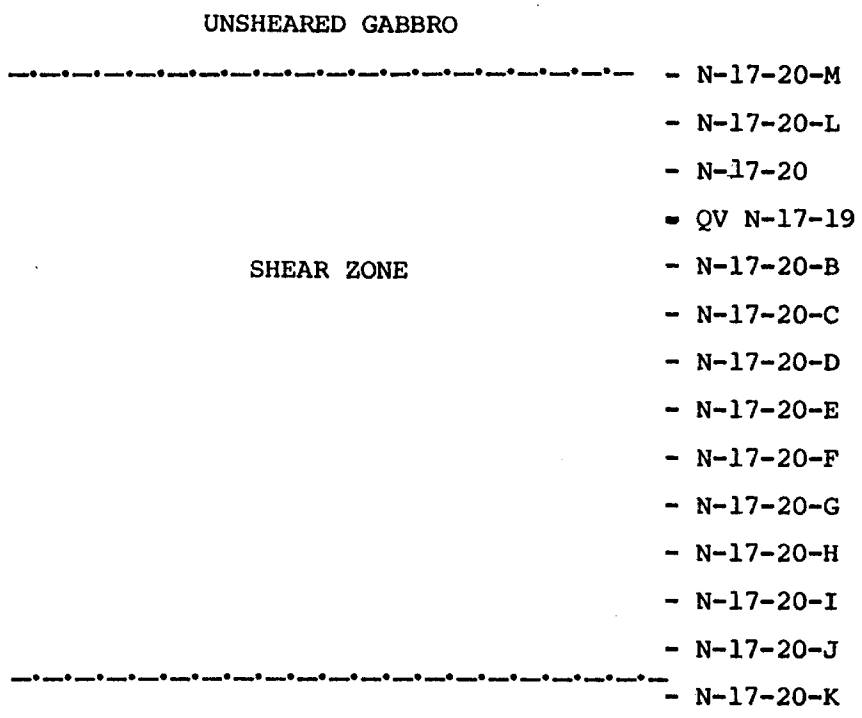
N-17, 18 and 19 are underlain by mafic metavolcanics which have been intruded by numerous gabbroic dykes. A north-trending, 100 m to 150 m wide, gabbro dyke is present about 200 m east of the west boundary of parcels N-17 and N-18. This gabbro dyke is exposed for 200 m north of the base line and intermittently for 800 m south of the base line. A second 300 m wide magnetic high (5,500 nT), which possibly represents a gabbro dyke, strikes northeast across N-17. A larger magnetic high, or series of highs (2,000 to 4,000 nT), probably representative of a mafic intrusive, is located in the northeast corner of N-18. Two, 300 m wide, magnetic highs (1,500 to 2,000 nT) occur in the south and northeast sections of N-19. Several smaller, 50 to 150 m wide, mafic intrusives are located in the central part of N-18 and the southeast corner of N-19. Magnetic lows typically occur along the margins of these magnetic highs and are probably dipoles of these highs.

A major north-northeast-trending fault zone cuts several of the magnetic highs. The fault is most clearly shown by the magnetic break across the northeast trending 300 m wide gabbro dyke. Only limited displacement appears to have occurred along the fault.

A 10 m wide east-west trending mineralized shear zone with up to 10% pyrite occurs within the 300 m wide, northeast trending gabbro dyke which is immediately west of the interpreted fault trace. More detailed magnetometer and VLF-EM surveys were carried out across the exposed shear zone in the vicinity of L5+50W at 4+25S. Trenching and sampling across this zone was done by a previous operator but results of this work are not available. Sampling during the summer program at 30 cm intervals across the main trench returned low gold (less than 10 ppb) and arsenic (less than 1.5 ppm) values (Figure 4). Other exposures of mineralized occurrences associated with the gabbro dykes in the property yielded similarly low gold and arsenic values.

Numerous, weak to strong VLF-EM conductors have been outlined on the property (Table 2). Several strong conductors are coincident with the 300 m northeast-trending magnetic high. Conductors N-17-3 and N-17-4 correlated with the surface exposure of the mineralized shear zone and, therefore, this shear zone probably extends much further along strike east and west of the trenched area. Conductor N-17-4 is strongest to the west of the trenched area but appears to weaken to the east as the thickness of the overburden increases. Several other strong conductors outlined elsewhere on the property are probably associated with gabbro dykes. The majority of weak conductors appear to reflect conductive overburden.

The program has been successful in outlining several targets for further follow up work including conductors N-17-3 and N-17-4, the major fault zone inferred from magnetic data and the mineralized shear zone. As a consequence, it is recommended that 14 mining claims be staked where possible to cover extensions of these features. A Max-Min II survey on north-south cut lines and extended



Note: Sample Interval Approximately 30 cm

Scale: 1 cm = 30 cm

FIGURE 4 - SAMPLE LOCATIONS OF THE TRENCH ON PARCEL N-17

magnetometer coverage should be completed across all patented and unpatented mining claims. A detailed magnetometer survey should also be carried out across the north-northwest trending fault. Further trenching and geochemical sampling of the mineralized shear zone should also be performed to the east and west of the old trench.

Freehold Parcels N-20 and 23

Parcels N-20 and 23 are located in east-central Bond Township and are accessible by the use of a township road, and a lake of the area. From Highway 101, travel approximately 2.5 km on Bond Road 1, then follow the Driftwood River west for approximately 1 km. Upon arrival at Moose Lake travel to the southeast end. The western part of the property extends out into Moose Lake.

N-20 and 23 are underlain by mafic metavolcanics and several gabbroic dykes. A large 400 m wide gabbroic dyke trends east-northeast between the two parcels. One, 200 m wide, north-trending Matachewan diabase dyke is exposed in the southwest corner of N-23 and a second 200 m wide diabase dyke, which is exposed at the northern boundary of N-20, strikes north-northeast across N-20.

VLF conductors range from poor to moderately strong but all are associated with the gabbro dykes or with conductive overburden.

The lack of significant bedrock conductors and possible structural breaks indicates the property has limited potential and, therefore, no further work is recommended on the property.

Freehold Parcels N-21 and 22

Parcels N-21 and 22 are located in west-central Bond Township. Access is available from Highway 101 through the use of primary and secondary logging roads. The Gibson Lake Road is followed to the June Lake - Round Lake turnoff. A secondary logging road is then followed to the southwest corner of the claim group, a distance of about 4 km.

Bedrock consists of mafic metavolcanics with a large 200 - 600 m wide, geophysically inferred gabbro dyke striking northeast across the northern portion of the claim blocks. Several small probable mafic intrusions are marked by magnetic highs on lines 1E, 4E, 6E, 9E, 11E and 12E. Magnetic lows, along or in close proximity to the margin of the large gabbro dyke, probably represent dipoles related to this dyke.

Four weak to strong conductors have been outlined on the west half of N-22 (Table 2). One weak to strong conductor (N-22-4) with a strike length of 300 m may reflect sulphide mineralization within mafic metavolcanics. Other anomalies are either overburden conductors or associated with the large 200 to 600 m wide gabbro dyke.

A Max-Min II survey, using north-south cut lines, is recommended to test conductor N-22-4.

Freehold Parcel N-26

Parcel N-26 is located in west-central Stock Township. Access is available from Highway 101 by travelling from Shillington along Highway 577 to Concession Road 3. Concession Road 3 is then followed for about 7.5 km at which point a flagged trail leads to the south boundary of the property.

The property is underlain by a sequence of metasediments which occur between the Pipestone Fault to the north and The Destor-Porcupine Fault to the south. A 100 - 150 m wide geophysically interpreted dyke trends northeast across the north section of the property. Approximately 5 km to the south-southwest is the St. Andrews Gold fields (Quebec Sturgeon River Mines) gold deposit.

The magnetometer data shows an overall weak magnetic relief characteristic of metasediments with the exception of a strong anomaly coincident with the 100 - 150 m wide gabbroic dyke.

Four weak to moderately strong VLF-EM conductors have been outlined but all appear to reflect conductive overburden.

Overall, no significant magnetic lows or breaks occur and the VLF-EM survey revealed only overburden conductors. However, the metasediments may host gold mineralization similar to that at Hemlo and it is recommended that an IP survey using north-south cut lines be carried out across the property.

Freehold Parcels N-38 and 39

Parcels N-38 and 39 are located in northwest Bond Township and just south of the Dester-Porcupine Fault. The recent Pominex discovery is 1 km to the west and the Asarco "Aquarius" deposit lies 6 km to the west. Access is available from Highway 101 through the use of a farm road which originates at the highway just north of the property.

The parcels are underlain by mafic metavolcanics with a large, 350 m wide, northeast trending gabbroic dyke cross-cutting the northern block (N-39). Two smaller possible mafic intrusions are located south of the large gabbroic dyke and a larger felsic intrusion is located north of the 350 m wide gabbroic intrusive. All intrusions have been inferred from geophysics due to a lack of bedrock exposure.

Conductor N-39-6 extends for a length of 500 m and is a possible bedrock conductor. As a result of the recent Pominex discovery, this anomaly warrants investigation. Numerous weak VLF conductors related to overburden effects or associated with mafic intrusions are widespread on the property.

A Max-Min II survey is required to penetrate the thick overburden and distinguish between overburden and bedrock conductors. This survey should be carried out over the northern half of the property, especially in the vicinity of conductor N-39-6.

Freehold Parcel N-42

Parcel N-42 is located in northeast Sheraton Township and 800 m east of property N-12. Access is available through the use of a township road, lakes and rivers in the area. From Highway 101, travel approximately 2.5 km on Bond Road 1, then follow the Driftwood River west for approximately 1 km. Upon arriving on Moose Lake travel to the southwest end and from there the Driftwood River for about 5.5 km to the southeast end of a small unnamed lake. The northwest corner of the property can be reached by following the adjoining claim lines.

The block is underlain by mafic ash and lapilli tuff which is intruded by a small, 100 m wide, north-striking gabbroic dyke along the western boundary and a larger, 200-300 m wide, gabbroic dyke along the eastern boundary. The small gabbro dyke outcrops in the southwest corner of the property whereas the larger gabbroic dyke is geophysically inferred from a large magnetic high. Except for the one small outcrop, the parcel is completely covered by thick varved clays.

Five weak to moderately strong VLF-EM conductors have been outlined and are related to conductive overburden or magnetite in gabbroic dykes.

Since most conductors are overburden conductors or the result of mafic dykes and no structural breaks exist, mineralization potential appears low. Therefore, no further work is recommended.

Freehold Parcel N-44

Parcel N-44 is located in southeast Egan Township. Access is available from Highway 101 from Matheson through the use of a primary logging road leading southwards from town. This road is followed for approximately 15.5 km after which the Carr Creek Road is travelled for about 2 km. A trail is then followed west to the Egan-McCann Township line. This township line leads south to the northeast corner of the property.

The property is underlain by granitic rocks and two large 200 m wide gabbro dykes. These units are extensively exposed in the western portion of the property, whereas the eastern part is covered by thick glacial overburden.

The magnetic highs correspond to the gabbro dykes which trend north along the western half of the property. Isolated magnetic lows are dipoles of these magnetic highs. Areas underlain by granitic rocks typically have a low magnetic relief.

One weak VLF-EM conductor was located and this anomaly is associated with the westernmost mafic dyke, hence is of limited significance.

The property appears to have poor exploration potential based on the lack of conductors and the unfavourable geological environment as much of the area is underlain by granitic rocks.

It is therefore recommended that no further work be carried out on the property.

Freehold Parcel N-47

Parcel N-47 is located in north-central Egan Township. Access is available through the use of Currie Road 2 for 5 km and a trail for 5.5 km. This trail leads south to the northeast corner of the property.

The property is underlain by the Bradley Lake Syenite and two large, 300 m wide, north-south trending gabbroic dykes marked by prominent magnetic highs. VLF conductors outlined are weak and all appear to be associated with the gabbroic dykes or a result of conductive overburden.

The potential for precious and base metal mineralization on the property is minimal and no further work is recommended.

REFERENCES

Pyke, D. R.; Ayres, L. D.; Innes, D. G.

1970, 1971: Ontario Geological Survey, Map 2205, Timmins - Kirkland Lake Geological Compilation Series; Cochrane, Sudbury and Timiskaming Districts.

Pyke, D. R.

1982: Geology of the Timmins Area, District of Cochrane, Ontario Geological Survey Report 219.

REPORT ON RECONNAISSANCE GEOPHYSICAL AND GEOLOGICAL EXPLORATION OF THE STOCK-MCCANN BLOCK, LARDER LAKE AND PORCUPINE MINING DIVISIONS, DISTRICT OF COCHRANE, ONTARIO FOR SHOGRIN MINERALS INC.

VOLUME II

B. & C. LTD.

S. S. McRoberts, B.Sc.

D. G. Wahl, P.Eng.

REGISTERED PROFESSIONAL ENGINEER
D. G. WAHL
PROVINCE OF ONTARIO

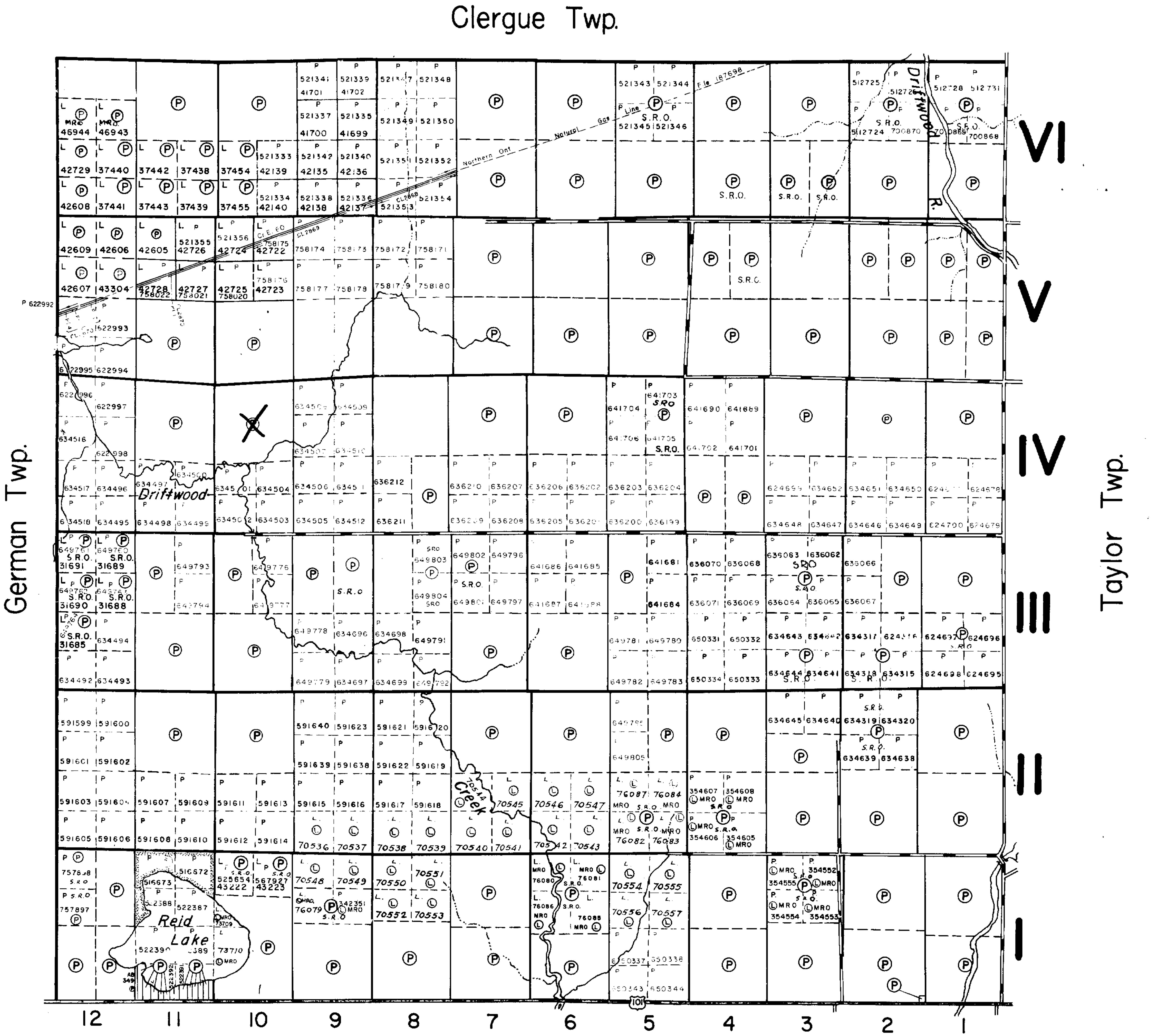
W. N. Pearson, Ph.D.

Toronto, Canada
March 12, 1984

TABLE OF CONTENTS

LIST OF MAPS
(In Pockets)

Map No.	Grid	Description
100A	N-6, 7, 8, 9	Proton Magnetometer Survey
100B	N-6, 7, 8, 9	VLF-EM 16 Survey, NAA - Cutler, Main
101A	N-10	Proton Magnetometer Survey
101B	N-10	VLF-EM 16 Survey, NAA - Cutler, Maine
102A	N-11, 40, 41	Proton Magnetometer Survey
102B	N-11, 40, 41	VLF-EM 16 Survey, NAA - Cutler, Maine
102C	N-11, 40, 41	Geology
103A	N-12	Proton Magnetometer Survey
103B	N-12	VLF-EM 16 Survey, NAA - Cutler, Maine
104A	N-13	Proton Magnetometer Survey
104B	N-13	VLF-EM 16 Survey, NAA - Cutler, Maine
105A	N-17, 18, 19	Proton Magnetometer Survey
105B	N-17, 18, 19	VLF-EM 16 Survey, NAA - Cutler, Maine
105C	N-17, 18, 19	Geology
VOLUME II		
106A	N-21, 22	Proton Magnetometer Survey
106B	N-21, 22	VLF-EM 16 Survey, NAA - Cutler, Maine
107A	N-20, 23	Proton Magnetometer Survey
107B	N-20, 23	VLF-EM 16 Survey, NAA - Cutler, Maine
107C	N-20, 23	Geology
108A	N-26	Proton Magnetometer Survey
108B	N-26	VLF-EM 16 Survey, NAA - Cutler, Maine
109A	N-38, 39	Proton Magnetometer Survey
109B	N-38, 39	VLF-EM 16 Survey, NAA - Cutler, Maine
110A	N-42	Proton Magnetometer Survey
110B	N-42	VLF-EM 16 Survey, NAA - Cutler, Maine
110C	N-42	Geology
111A	N-14, 43	Proton Magnetometer Survey
111B	N-14, 43	VLF-EM 16 Survey, NAA - Cutler, Maine
111C	N-14, 43	Geology
112A	N-44	Proton Magnetometer Survey
112B	N-44	VLF-EM 16 Survey, NAA - Cutler, Maine
112C	N-44	Geology
113A	N-47	Proton Magnetometer Survey
113B	N-47	VLF-EM 16 Survey, NAA - Cutler, Maine
114A	N-16, 48	Proton Magnetometer Survey
114B	N-16, 48	VLF-EM 16 Survey, NAA - Cutler, Maine



42A10SE8887 63.4226 BOND

200

B.D.

THE TOWNSHIP OF

STOCK

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	Ⓢ or 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	

NOTES

400' Surface rights reservation around all lakes and rivers.

RESERVATIONS:

(R) - Reserved for recreational purposes under Sec. 3 P.L.A. File 188543.

PLAN NO.- M. 388

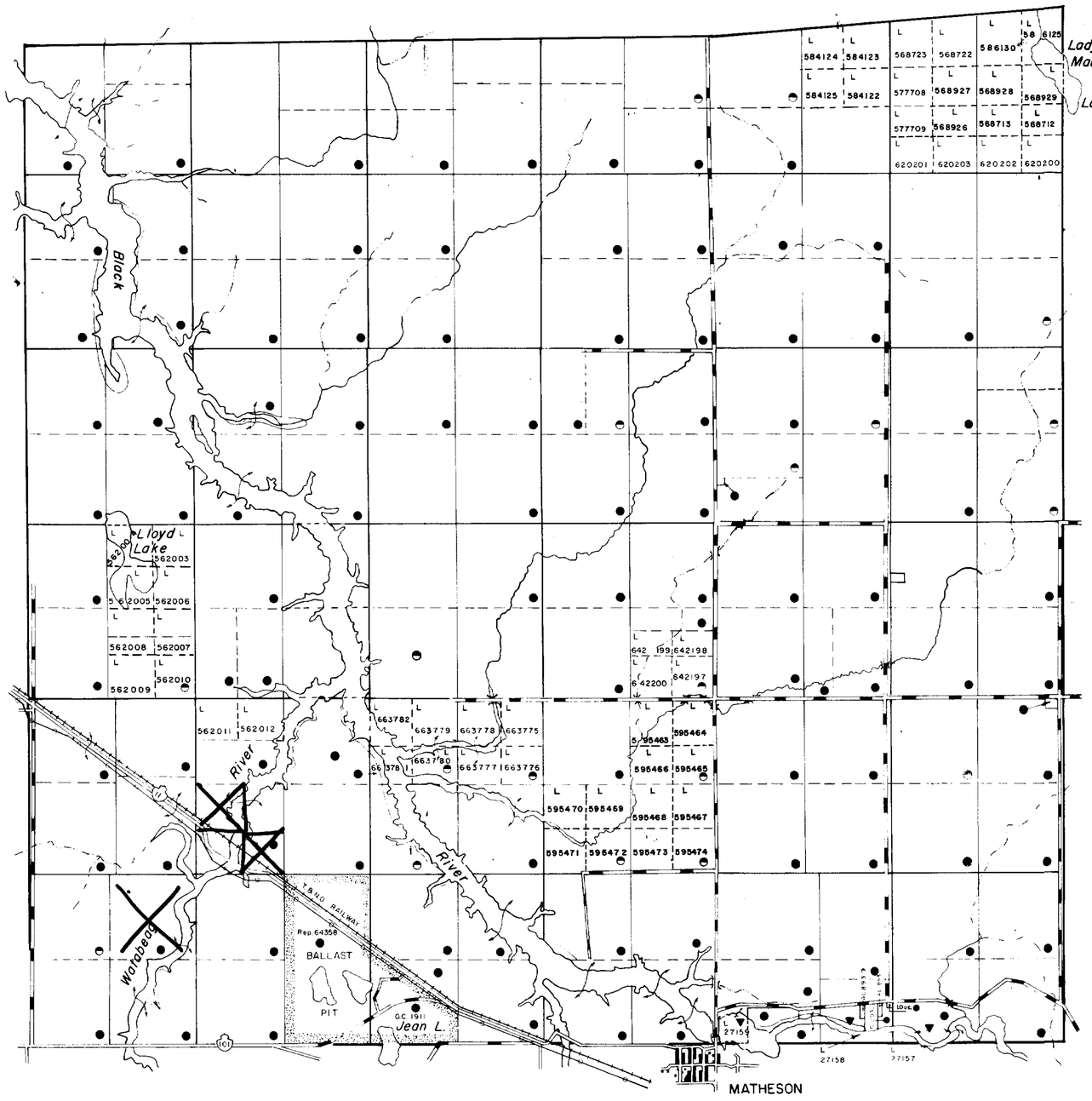
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◒
" , MINING RIGHTS ONLY	◓
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	◨
" , MINING RIGHTS ONLY	◧
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	Ⓡ
CANCELLED	⊗
SAND & GRAVEL	Ⓢ

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

WILKIE TWP. M-398



LEGEND

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

NOTES

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

L.O. 8672 for flooding rights along the shores of Black and Watabeag rivers.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

ACRES	HECTARES
40	16

TOWNSHIP OF

CARR

DISTRICT

COCHRANE

MINING DIVISION

LARDER LAKE

Ontario Ministry of Natural Resources — Surveys and Mapping Branch

Date FEB./80

National Topographic Series

Plan No. M-335

Taylor Twp.

Bond Twp.

Bowman Twp.

Egan Twp.

VI

V

IV

III

II

I

12 11 10 9 8 7 6 5 4 3 2 1

Levacque L.

Grindstone

Grassy L.

River

Hooker Cr.

Watubega Cr.

WITHDRAWN FROM STAKING

SURFACE RIGHTS WITHDRAWN FROM STAKING

W.P.L.5

THE TOWNSHIP OF CURRIE

DISTRICT OF COCHRANE

LARDER LAKE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	(S) or CS
LEASES	(L)
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	

NOTES

AREA MARKED THUS
Files: 11593
21312
WITHDRAWN FROM STAKING UNDER SEC. 39 (D) OF MINING ACT

400' Surface rights reservation around all lakes and rivers.

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

Order No.	File	Date	Disposition

DATE OF ISSUE
JUN 28 1983
Ministry of Natural Resources
TORONTO

PLAN NO.- M.341

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

42A10SE8887 63.4226 BOND

220

J. V. Kalden

SHERATON TOWNSHIP

ONTARIO

MINISTRY OF NATURAL RESOURCES — PORCUPINE MINING DIVISION

SURVEYS AND MAPPING BRANCH

DISTRICT OF COCHRANE — M.386

SCALE 40 CHAINS TO ONE INCH

N

BOND TWP.

M.N.R. Gravel Pit No. 257 135313 V. 2

Gravel File-(3531)

D.H.O.

Gr. Pit 1442

Sheraton Lake

214105 214106 214107 214108 214109 214110
214111 214112 214113 214114 214115 214116

M.R.O.

S.R.O.

598867 598866 598865 598870 598869 598864

636123 579581 579604 579605 636127

THOMAS TWP.

EGAN TWP.

VI V IV III II I

42A10SE8887 63.4226 BOND

230

DISTRICT BOUNDARY

12 11 10 9 8 7 6 5 4 3 2 1

TIMMINS TWP.

Areas with ... g under Section 43 of the ...ing Act 1970.

Order No.	File	L	Disposition
R1 W.68/77	177198	4/8/77	S.R.O.
R2 W.16/82		19/11/82	S.R. & M.R.

LEGEND

PATENTED LANDS ..... (P)

CROWN LAND SALES ..... (S)

400' Surface rights reservation around all lakes and rivers.

EGAN TOWNSHIP

LARDER LAKE MINING DIVISION

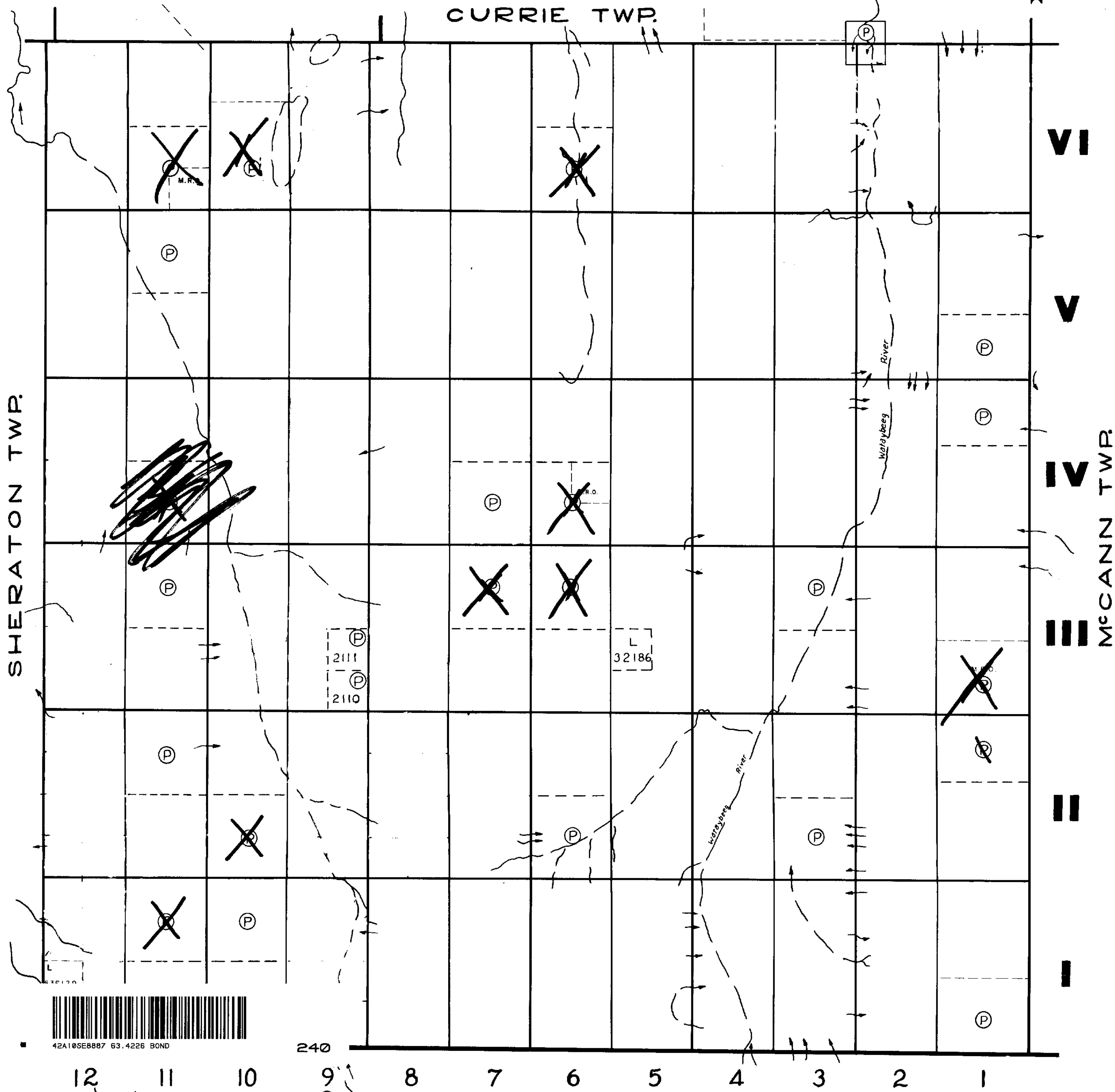
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

DISTRICT OF COCHRANE

M.346

N

SCALE 40 CHAINS TO ONE INCH



400' Surface rights reservation around all lakes and rivers.

LEGEND

LEASES ... (L)
MINING RIGHTS ONLY ... M.R.O.
SURFACE RIGHTS ONLY ... S.R.O.
CANCELLED ... C.
IMPROVED ROADS ... ▬▬▬
TRAILS .... ------
PATENTED LANDS .... (P)
CROWN LAND SALES .... (S)
LICENSE OF OCCUPATION ..... L.O
LOCATED LANDS .... Loc.

STOCK Twp

TAYLOR Twp

CARR Twp

BOND Twp

CURRIE Twp

BOWMAN

SHERATON Twp

EGAN Twp

McCANN

NATURAL Gas Line

PIPESTONE FAULT

PORCUPINE DESTOR FAULT

CROSS LAKE FAULT

Driftwood Cr.

Reid Lake

Moose Lake

Sheraton Lake

Grassy Lake

Levaque Lake

Lloyd Lake

Wabber Cr.

Wolfsbag River

Hooker Cr.

T & N.O. RAILWAY

Andesite, Qtz, Sheared Schist, py

Andesite, Porphyry - 9% py

py in Andesite

py in altered volcanics

sph, gn, py

magnetite, py, cpy

sph, gn, cpy, py, po, Slate, Tuff, Schist

Slate, Graphite sph, gn, py

py, Tr. Au-Ag, Porphyry, Rhyolite

cpy, py, sph

magnetite, py, sph

py, cpy, magnetite

py, po

Basalt, Qtz, py

EXTENSIVE CLAY COVER

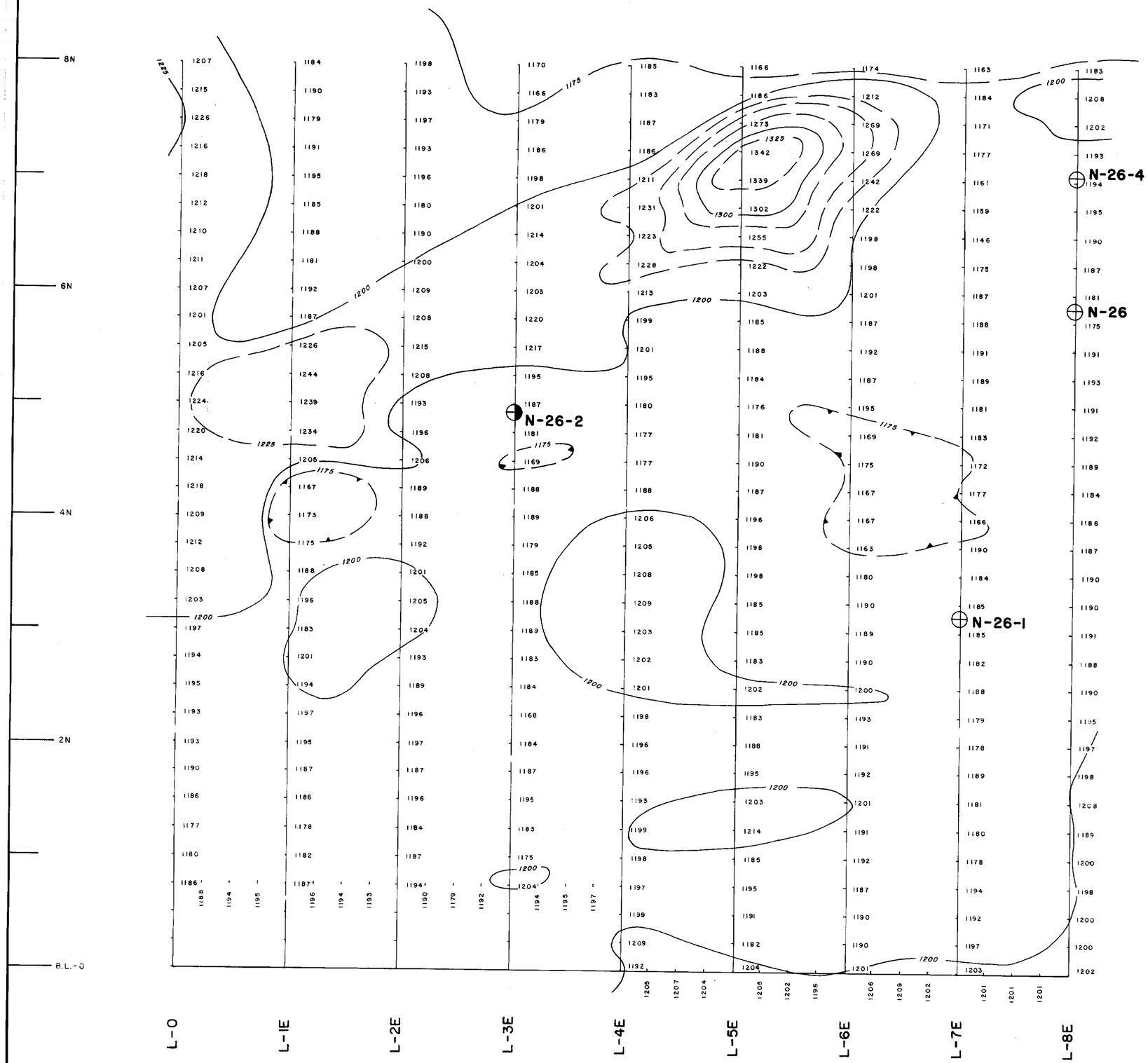
BRADLEY LAKE SYENITE

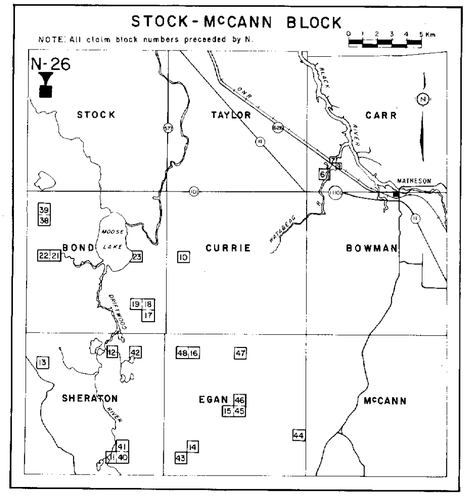
N-22 SMR
N-21 SMR
N-23 SMR
N-20 SMR
N-19 SMR
N-18 SMR
N-17 SMR
N-10 SMR
N-6 SMR
N-39 MRO
N-38 MRO
N-12 SMR
N-42 MRO
N-13 SMR
N-41 MRO
N-11 SMR
N-40 MRO
N-48 MRO
N-16 SMR
N-47 MRO
N-46 MRO
N-15 SMR
N-45 MRO
N-44 MRO
N-14 SMR
N-43 MRO

48° 30'

80° 45'

1/2 0 1/2 1 2
MILES





LEGEND

1736 — Total magnetic field intensity above local background of 58,000 nT

1700 — Contour interval 25 nT, 50 nT, 100 nT

VLF-EM Conductor

SCALE

0 100 200 300

METRES

63.4226

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

STOCK TWP. GRID N-26

PROTON MAGNETOMETER SURVEY

260

DERRY, MICHENER, BOOTH & WAHL

SURVEY BY: R. Harwood

DRAWN BY: T. Grace

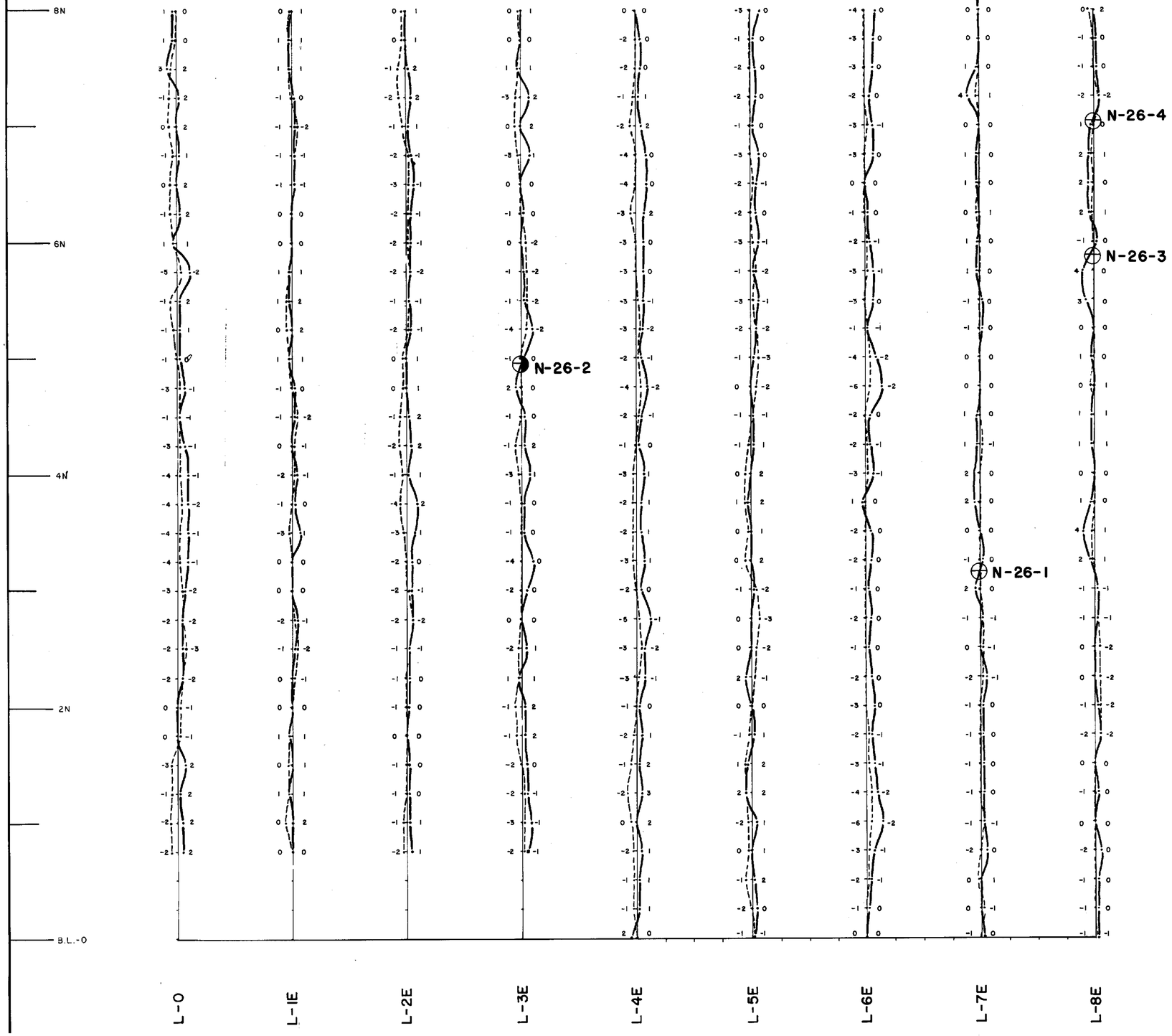
APPROVED BY: D.G. Wahl

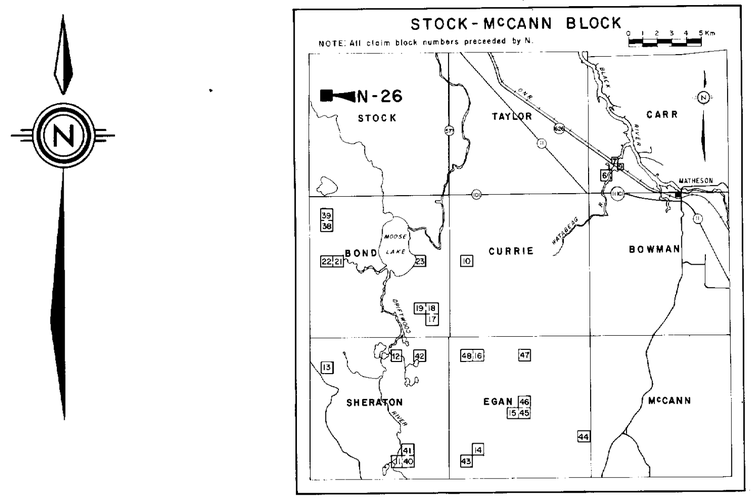
N.T.S. 42-A/10

DATE: Jan., 1984

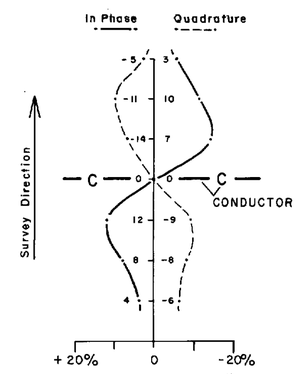
DWG. No. 108 A

REGISTERED PROFESSIONAL ENGINEER D.G. WAHL PROVINCE OF ONTARIO





LEGEND



POOR

EXCELLENT

SCALE

0 100 200 300

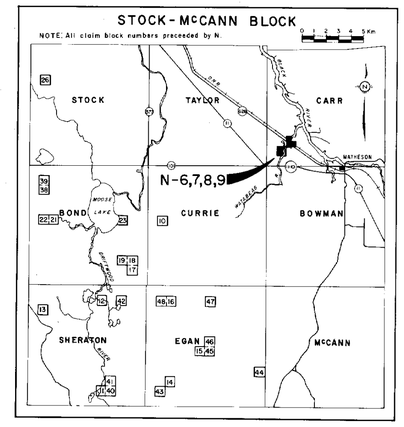
METRES

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK	SURVEY BY J. Nikiforuk
STOCK TWP. GRID N-26	DRAWN BY G.V., L.C.
VLF-EM 16 SURVEY	APPROVED BY D. G. Wahl
NAA CUTLER, MAINE 17.8 kHz	N.T.S. 42-A/10
	DATE: January, 1984
DERRY, MICHENER, BOOTH & WAHL	DWG. No. 108 B

REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO

270



8N
6N
4N
2N
BL.
2S
4S
6S
8S
BL. Az. 270°

HWY 626

N-7,8,9-1
N-7,8,9-2
N-7,8,9-3
N-6-1
N-6-2
N-6-3
N-6-4
N-6-5
N-6-6

L-3E L-4E L-5E L-6E L-7E L-8E L-9E L-10E L-11E L-12E L-13E L-14E L-15E L-16E

WATABEAG RIVER

LEGEND

- 1577 — Total magnetic field intensity above local background of 58,000 nT
- 1500 — Contour interval 100 nT, 200nT
- Gas Pipeline

SCALE
0 100 200 300
METRES

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK
CARR TWP. GRID N-6,7,8,9

PROTON MAGNETOMETER SURVEY

280

DERRY, MICHENER, BOOTH & WAHL

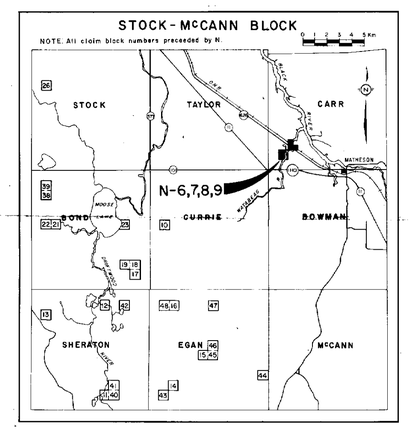
SURVEY BY: R. Harwood
DRAWN BY: G. Vance
APPROVED BY: W.N. Pearson
N.T.S.: 42-A/9
DATE: Aug. 16/1983
DWG. No.: 100 A

REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO

42A10SE8887 63.4226 BOND

STOCK-McCANN BLOCK

NOTE: All claim block numbers preceded by N.



N-7,8,9-1

N-7,8,9-2

N-7,8,9-3

N-6-1

N-6-2

N-6-3

N-6-4

N-6-5

N-6-6

HWY 626

GAS PIPELINE

POWER AND RAIL LINE INFLUENCE

WATABEAG RIVER

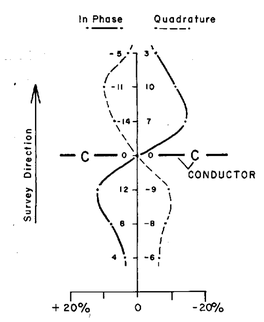
BL. Az. 270°

BL.

8N
6N
4N
2N
2S
4S
6S
8S

L-0 L-3E L-4E L-5E L-6E L-7E L-8E L-9E L-10E L-11E L-12E L-13E L-14E L-15E L-16E

LEGEND



POOR

EXCELLENT

SCALE

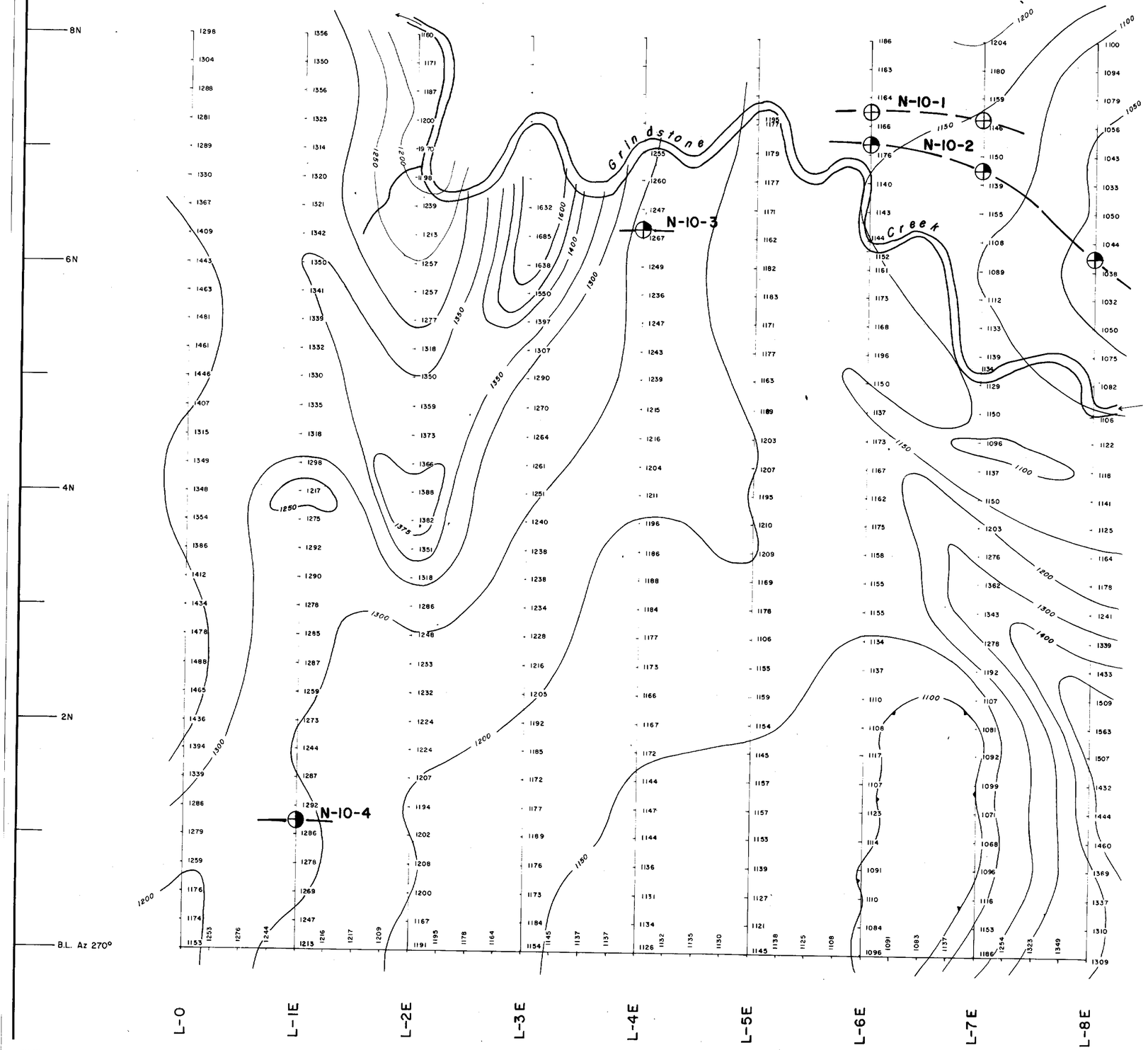
0 100 200 300

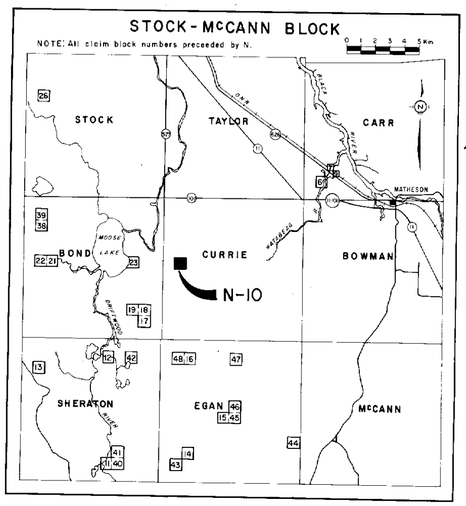
METRES

SHOGRIN MINERALS INC.		
	STOCK-McCANN BLOCK	SURVEY BY: R. Harwood
	CARR TWP. GRID N-6,7,8,9	DRAWN BY: L. Collins
D. G. WAHL REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO	VLF-EM 16 SURVEY NAA CUTLER, MAINE. 17.8 kHz	APPROVED BY: D.G. Wahl
		N.T.S. 42-A/9
		DATE: Jan., 1984
	290	DWG. No.
	DERRY, MICHENER, BOOTH & WAHL	100 B

42A10SE8887 63.4226 BOND

290





LEGEND

1736 — Total magnetic field intensity above local background of 58,000 nT

1700 — Contour interval 100 nT, 500 nT, 1000 nT

VLF-EM Conductor

SCALE

0 100 200 300

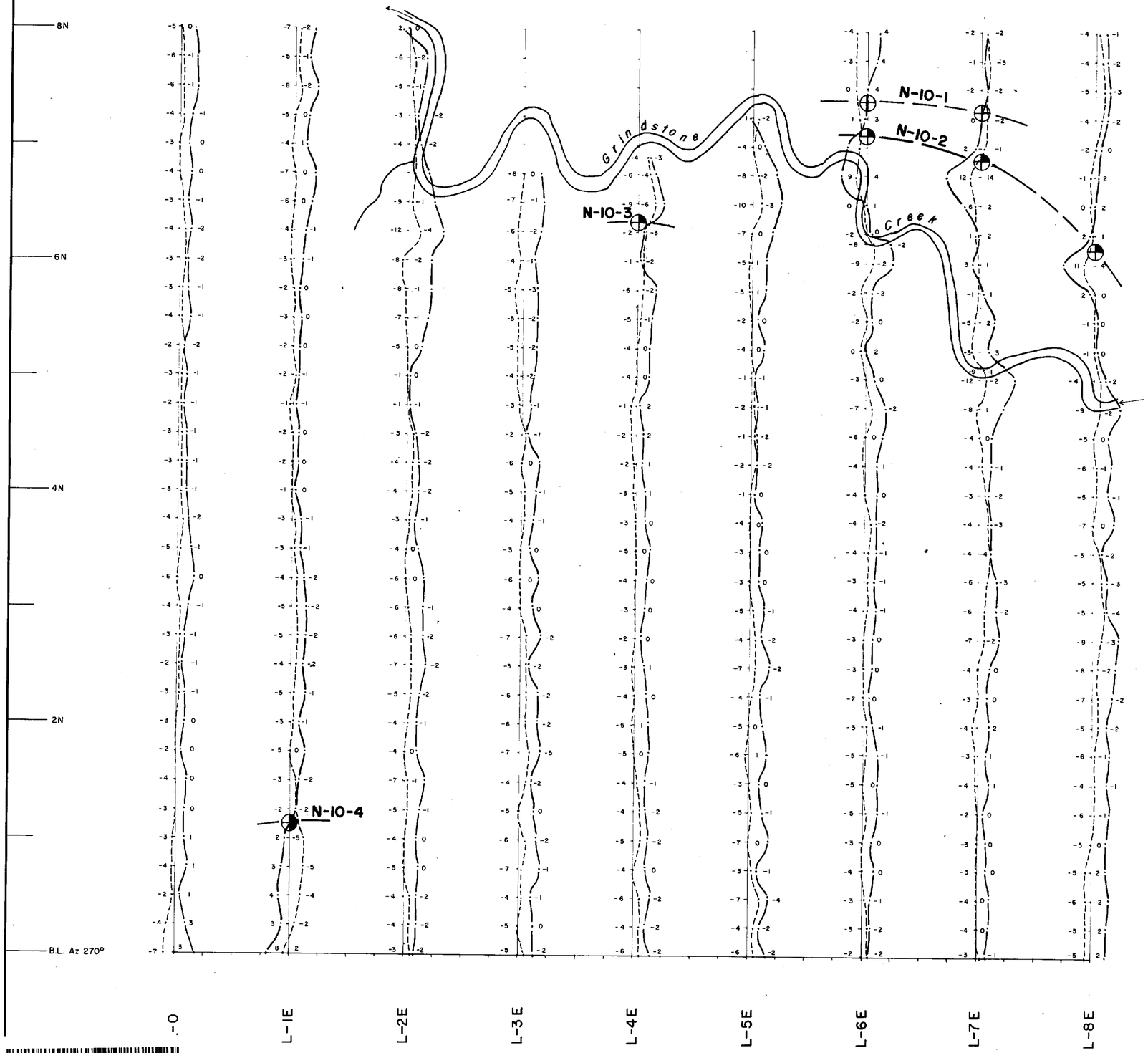
METRES

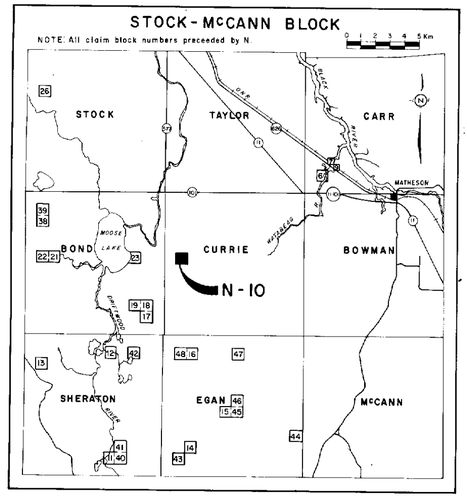
SHOGRIN MINERALS INC.	
STOCK-McCANN BLOCK	SURVEY BY: R. Harwood
CURRIE TWP. GRID N-10	DRAWN BY: L. Collins
PROTON MAGNETOMETER SURVEY	APPROVED BY: D.G. Wahl
	N.T.S. 42-A/7
	DATE: Feb., 1984
DERRY, MICHENER, BOOTH & WAHL	DWG. No 101 A

REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO

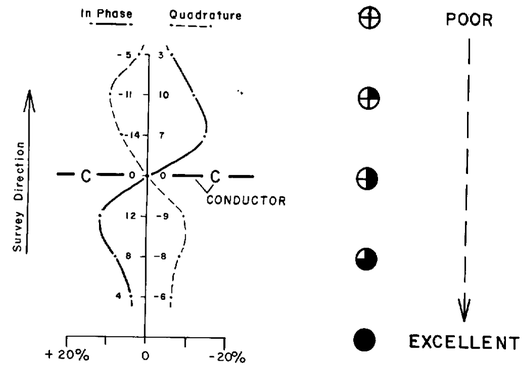
42A10SE8887 63.4226 BOND

300





LEGEND



SCALE

0 100 200 300

METRES

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

CURRIE TWP. GRID N-10

VLF-EM 16 SURVEY

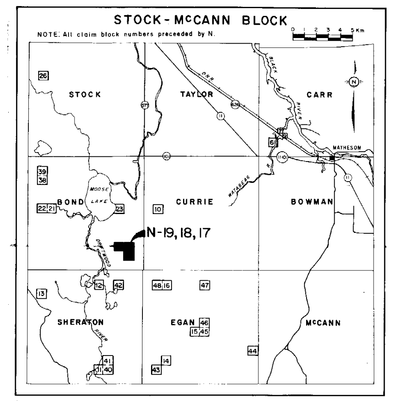
NAA CUTLER, MAINE 17.8 kHz

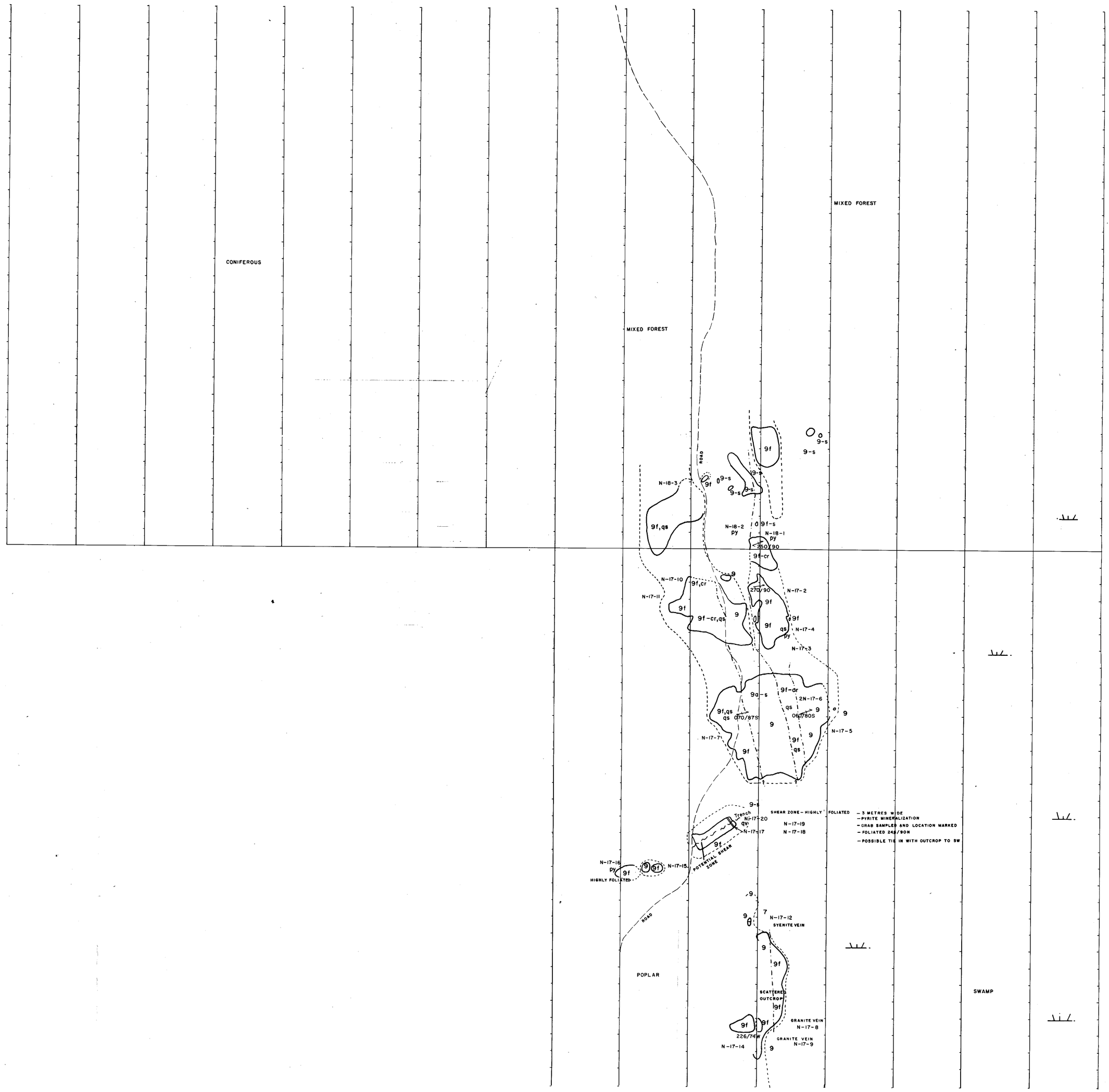
310

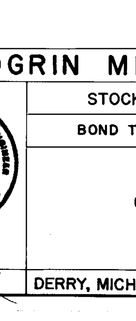
DERRY, MICHENER, BOOTH & WAHL

D.G. WAHL — REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF ONTARIO

SURVEY BY	J. Nikiforuk
DRAWN BY	L. Collins
APPROVED BY	D.G. Wahl
N.T.S.	42-A/7
DATE	January, 1984
DWG. No	101 B







LEGEND

MAFIC INTRUSIVES

10 Fine grained diabase

9 Gabbro

8 Skotchewan diabase (feldspar phenocrysts)

FELSIC INTRUSIVES

7 Syenite

6 Granite

METASEDIMENTS

5 Greywacke, siltstone, slate, argillite & minor conglomerate

INTERMEDIATE TO FELSIC METAVOLCANICS

4

MAFIC METAVOLCANICS

3 Mafic Pyroclastics mainly ash tuff, lapilli tuff

2 Tholeiitic Basalt
- a unsubdivided
- b Fe Tholeiitic basalt massive to locally variolitic
- c Mg Tholeiitic basalt massive to locally variolitic

ULTRAMAFIC METAVOLCANICS

1 Komatiitic Basalt

SYMBOLS

- br Breccia
- f Foliated
- h Hornfels
- m Massive
- s Sheared
- qv Quartz vein
- qs Quartz stringers
- cr Carbonate alteration
- hs Hematite staining
- py Pyrite
- cpy Chalcopyrite
- mt Magnetite
- Outcrop
- Area of outcrop
- x Small outcrop
- s Subcrop
- Contact (actual, inferred)
- Fault (defined, approximate, assumed)
- Foliation (strike & dip)
- Sample location N Grid # - sample #
- G Inferred from geophysical data

SCALE
0 100 200 300
METRES

SHOGRIN MINERALS INC.

STOCK - McCANN BLOCK

BOND TWP. GRID N - 19,18,17

GEOLOGY

320

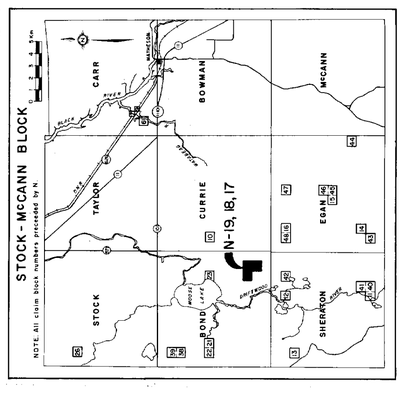
D. G. WAHL — Registered Professional Engineers, Mining Engineers and Consultants

DERRY, MICHENER, BOOTH & WAHL

SURVEY BY: S. MCROBERTS
DRAWN BY: L. COLLINS
APPROVED BY: W.N. PEARSON
N.T.S. 42-A/7
DATE: JANUARY, 1984
DWG. No.: 105 C

42A10SE0887 63.4226 BOND

320



LEGEND

1377 Total magnetic field intensity above local background of 58,000 nT

1800 Contour interval 100nT, 200 nT

SCALE

0 100 200 300 METRES

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

BOND TWP. GRID N-19,18,17

SURVEY BY: R. Harwood

DRAWN BY: L. Collins

APPROVED BY: D.G. Wahl

N.T.S. 42-A/7

DATE: Feb., 1984

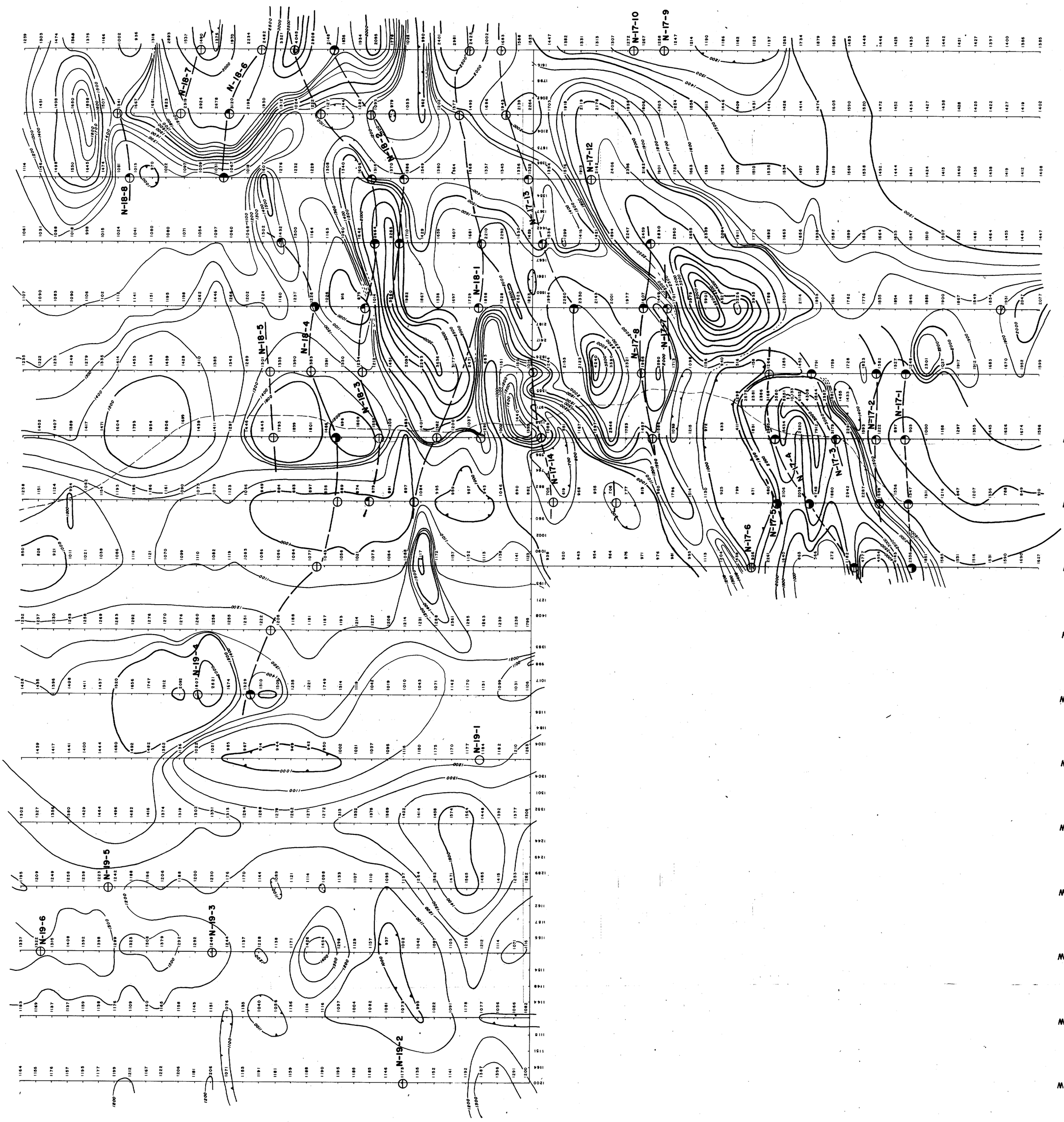
DWG. No.: 330

REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO

PROTON MAGNETOMETER SURVEY

DERRY, MICHENER, BOOTH & WAHL

105 A



330

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

BOND TWP. GRID N-19,18,17

VLF-EM 16 SURVEY

NAA CUTLER, MAINE 17.8 kHz

D. G. WAHL

SURVEY BY: J. Nikiforuk

DRAWN BY: L. Collins

APPROVED BY: D. G. Wahl

N.T.S. 42-A/7

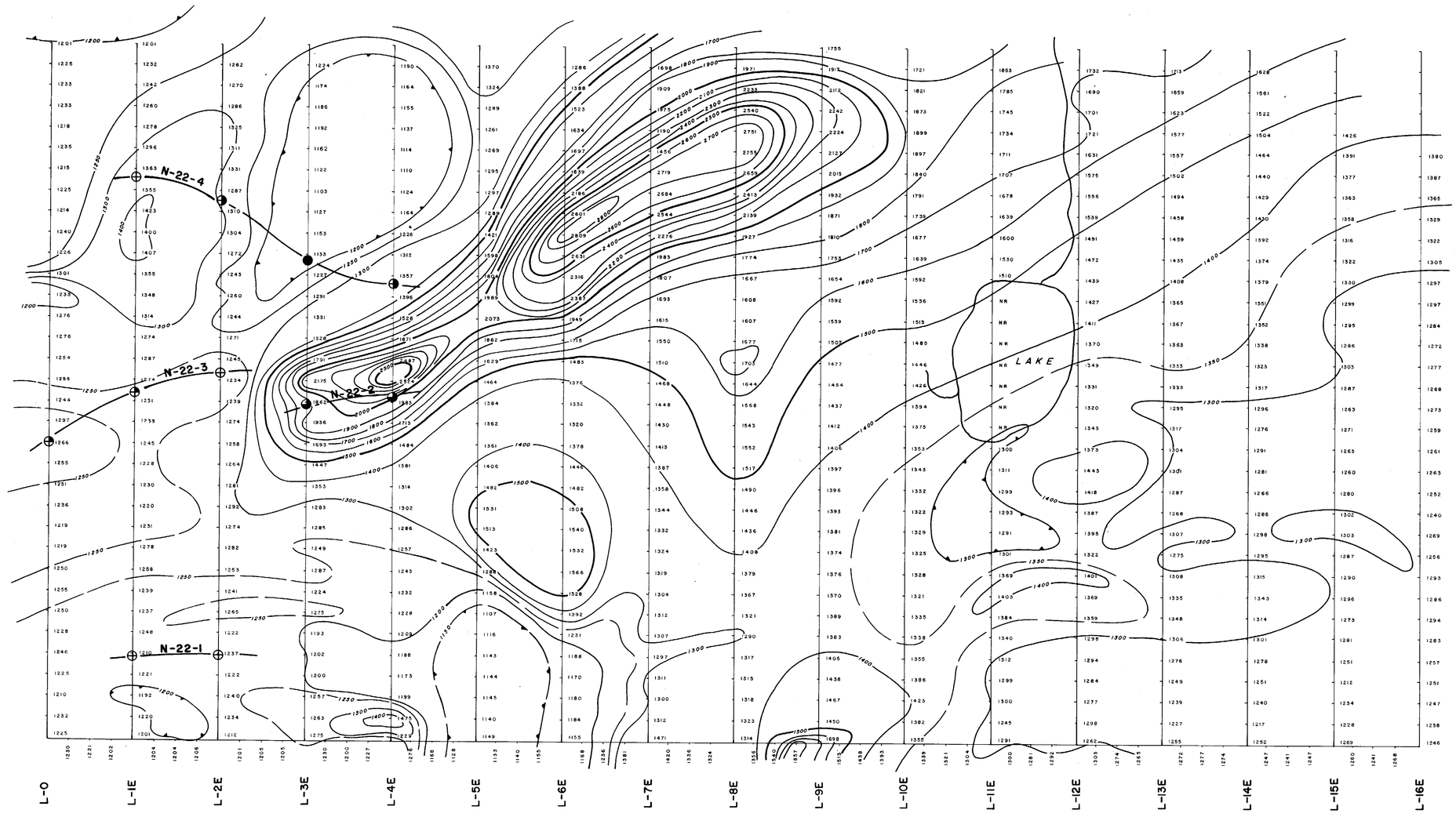
DATE: Feb. 1984

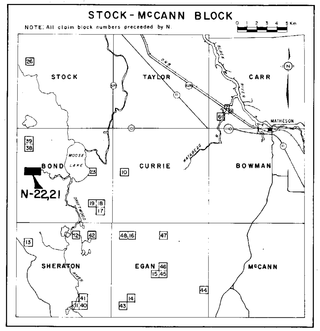
DWG. No.: 105 B

340

DERRY, MICHENER, BOOTH & WAHL

340





LEGEND

1736 — Total magnetic field intensity above local background of 58,000 nT

1700 — Contour interval 100 nT, 500 nT, 1000 nT

VLF-EM Conductor

SCALE

0 100 200 300

METRES

63.4226

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

BOND TWP. GRID N-22 & 21

PROTON MAGNETOMETER SURVEY

350

D. G. WAHL — REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF ONTARIO

DERRY, MICHENER, BOOTH & WAHL

SURVEY BY: J. NIKIFORUK

DRAWN BY: G.V.

APPROVED BY: D. WAHL

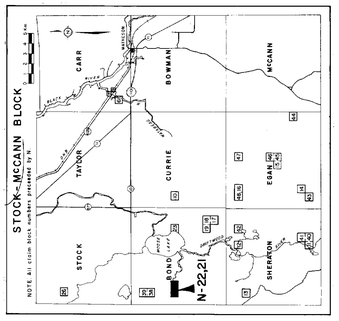
N.T.S.: 42-A/7

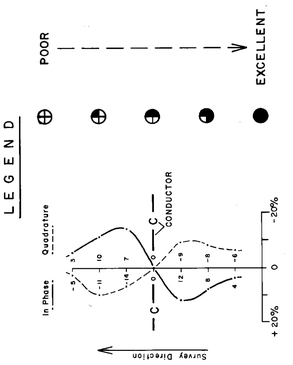
DATE: AUG., 1983

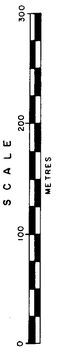
DWG. No.: 106 A

42A10SE8887 63.4226 BOND

350







SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

BOND TWP. GRID N-22 & 21

VLF - EM 16 SURVEY

NAA CUTLER, MAINE 17.8 kHz

SURVEY BY: J. NIKIFORUK

DRAWN BY: G.V.

APPROVED BY: D.WAHL

N.T.S.: 42-A/7

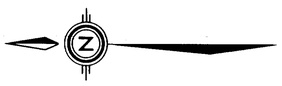
DATE: AUG., 1983

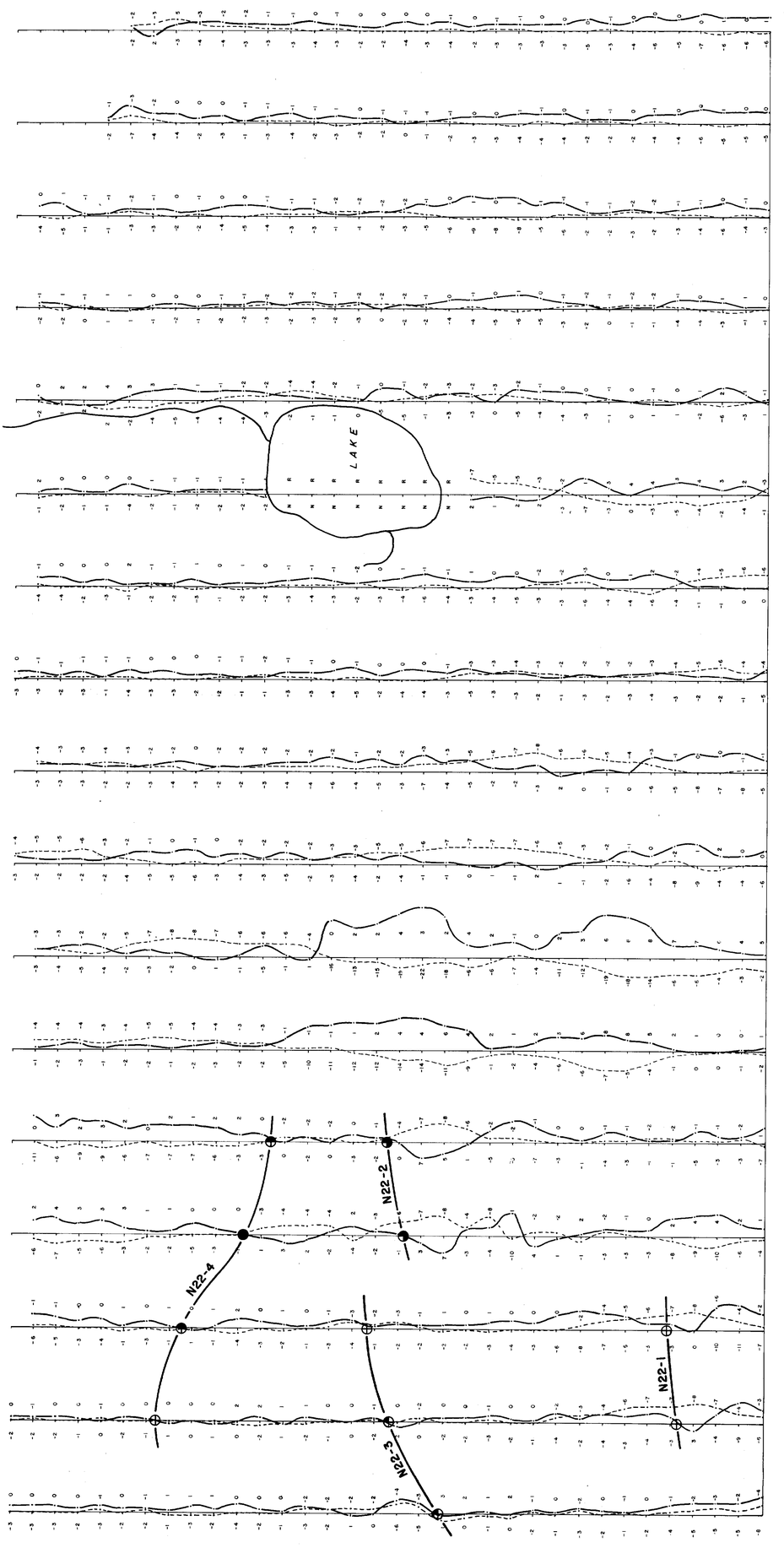
DWG No.: 106 B

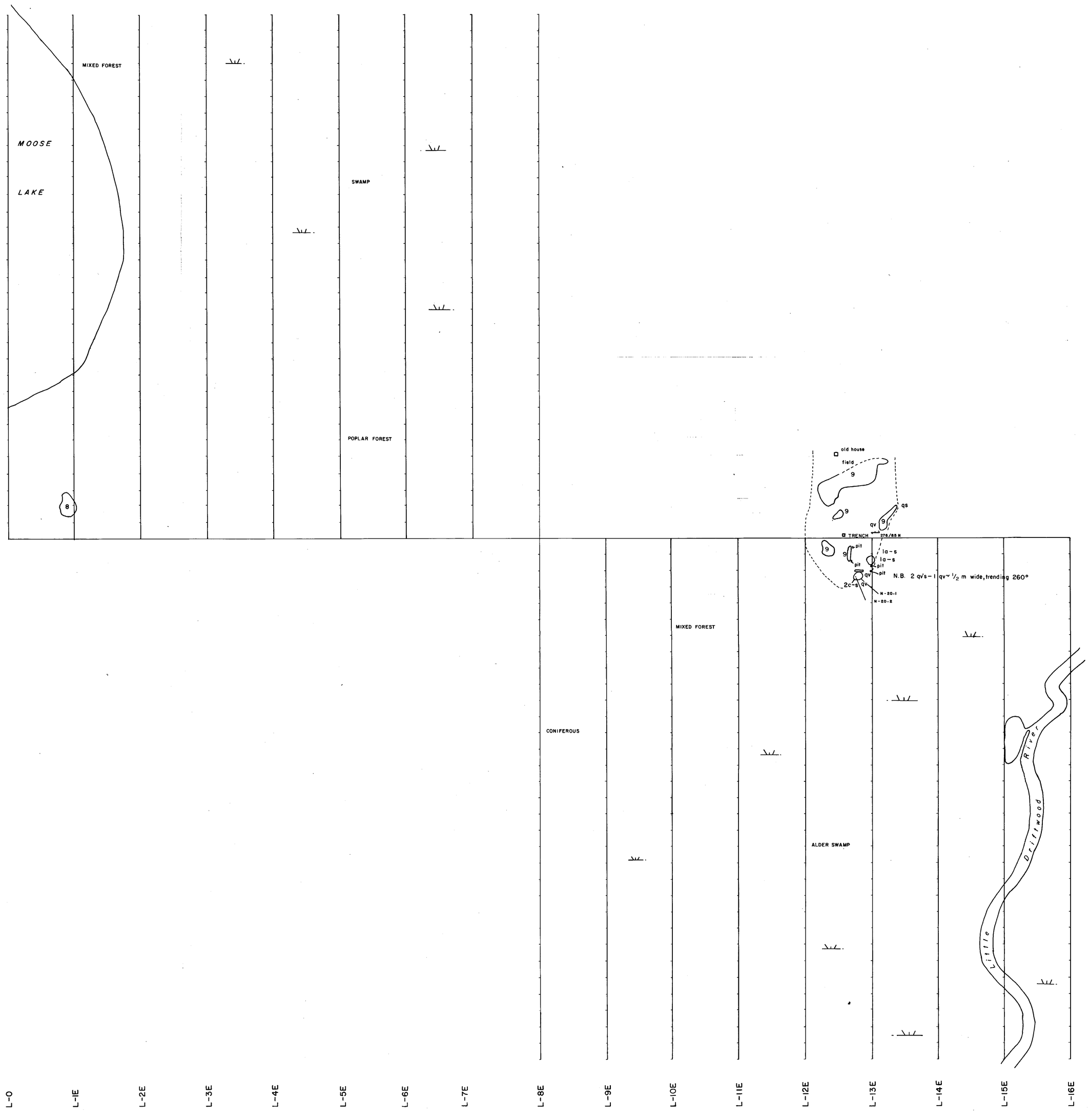
DERRY, MICHENER, BOOTH & WAHL

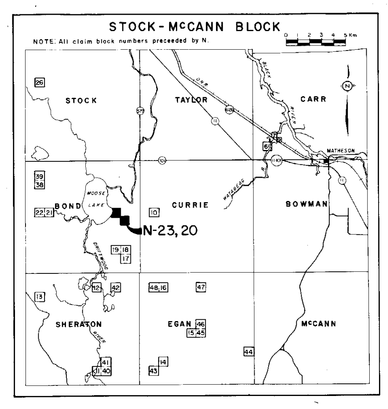
D.G. WAHL — Registered Professional Engineer — Province of Ontario

360









LEGEND

MAFIC INTRUSIVES
- 10 Fine grained diabase
- 9 Gabbro
- 8 Matachewan diabase (feldspar phenocrysts)

FELSIC INTRUSIVES
- 7 Syenite
- 6 Granite

METASEDIMENTS
- 5 Greywacke, siltstone, slate, argillite & minor conglomerate

INTERMEDIATE TO FELSIC METAVOLCANICS
- 4

MAFIC METAVOLCANICS
- 3 Mafic Pyroclastics mainly ash tuff, lapilli tuff
- 2 Tholeiitic Basalt
  - a unsubdivided
  - b Fe Tholeiitic basalt massive to locally variolitic
  - c Mg Tholeiitic basalt massive to locally variolitic

ULTRAMAFIC METAVOLCANICS
- 1 Komatiitic Basalt

SYMBOLS
- br Breccia
- f Foliated
- h Hornfels
- m Massive
- s Sheared
- qv Quartz vein
- qs Quartz stringers
- cr Carbonate alteration
- hs Hematite staining
- py Pyrite
- cpy Chalcopyrite
- mt Magnetite

- Outcrop
- Area of outcrop
- x Small outcrop
- s Subcrop
- Contact (actual, inferred)
- Fault (defined, approximate, assumed)
- Foliation (strike & dip)
- ⊗ Sample location N Grid # - sample #
- G Inferred from geophysical data

SCALE
0 100 200 300
METRES

SHOGRIN MINERALS INC.

STOCK - McCANN BLOCK

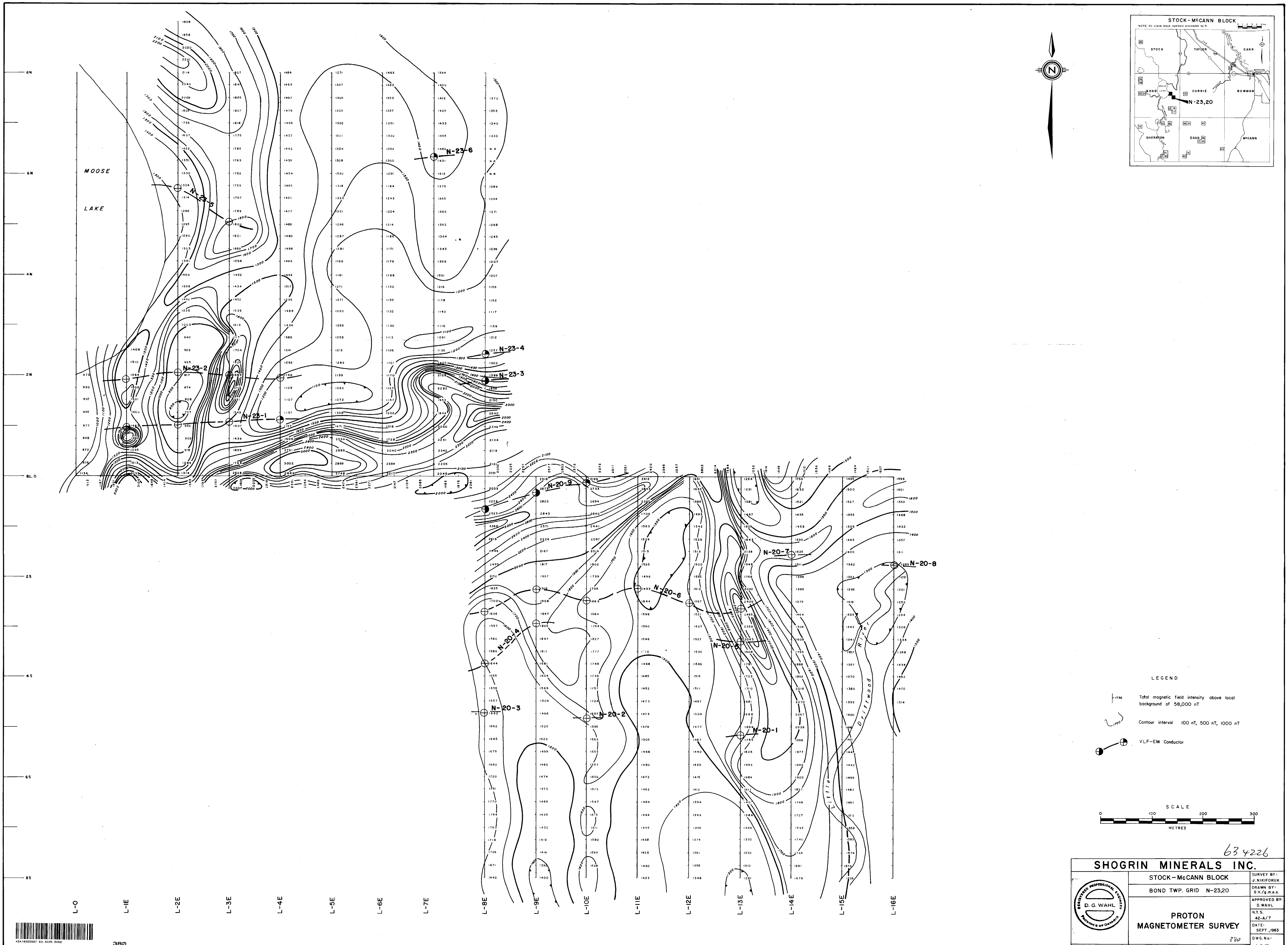
BOND TWP. GRID N-23,20

GEOLOGY

SURVEY BY: S. McROBERTS
DRAWN BY: L. COLLINS
APPROVED BY: W.N. PEARSON
N.T.S. 42-A/10
DATE: JANUARY, 1984
DWG. No.: 107 C

DERRY, MICHENER, BOOTH & WAHL

D. G. WAHL REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO



LEGEND

1736 Total magnetic field intensity above local background of 58,000 nT

Contour interval 100 nT, 500 nT, 1000 nT

VLF-EM Conductor

SCALE

0 100 200 300

METRES

63.4226

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

BOND TWP. GRID N-23,20

PROTON MAGNETOMETER SURVEY

D. G. WAHL

REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO

SURVEY BY: J. NIKIFORUK

DRAWN BY: G.V./g.m.s.

APPROVED BY: D. WAHL

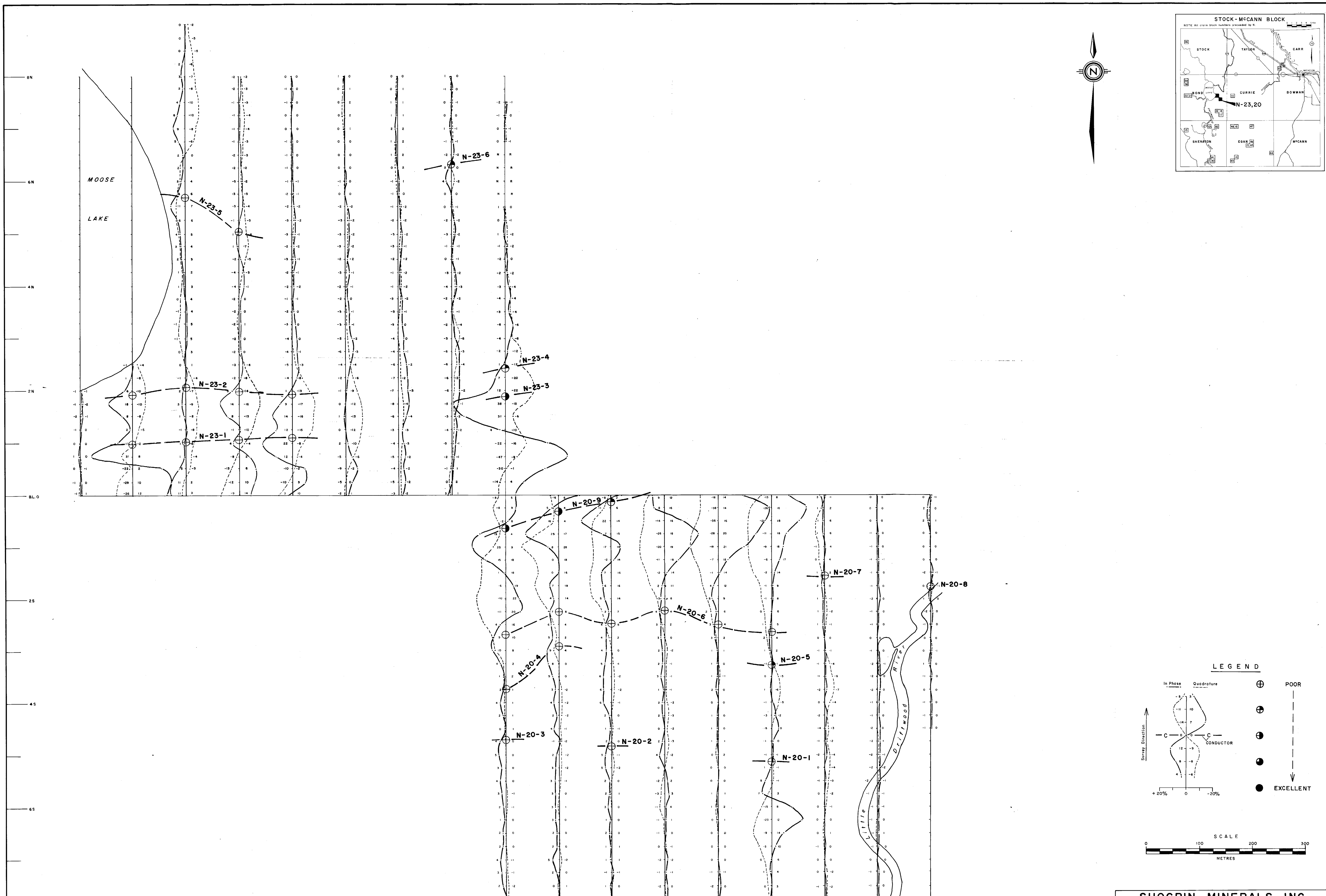
N.T.S. 42-A/7

DATE: SEPT., 1983

DWG. No.: 107 A

DERRY, MICHENER, BOOTH & WAHL

380



SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

BOND TWP. GRID N-23,20

VLF-EM 16 SURVEY

NAA CUTLER, MAINE 17.8 kHz

D. G. WAHL (seal)

SURVEY BY: J. Nikiforuk

DRAWN BY: L. Collins

APPROVED BY: D. G. Wahl

N.T.S. 42-A/7

DATE: Feb., 1984

DWG. No: 107 B

390

DERRY, MICHENER, BOOTH & WAHL

L-8W L-7W L-6W L-5W L-4W L-3W L-2W L-1W L-0

8N 6N 4N 2N B.L. Az 270° 2S 4S 6S 8S

N-39-7 N-39-6 N-39-5 N-39-4 N-39-3 N-39-2 N-39-1 N-38-7 N-38-1 N-38-2 N-38-3 N-38-4 N-38-6 N-38-5

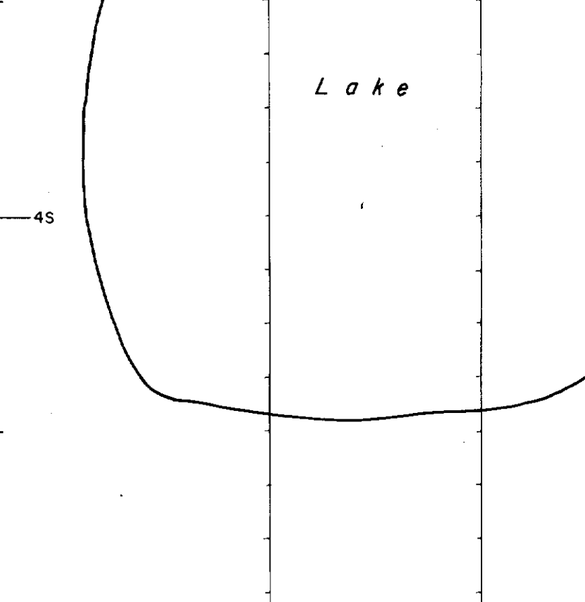
Lake

N

STOCK-McCANN BLOCK

NOTE: All claim block numbers preceeded by N.

0 1 2 3 4 5 Km



LEGEND

1577 Total magnetic field intensity above local background of 58,000 nT

1500 Contour interval 100 nT, 200nT

0 100 200 300 METRES

42A10SE8887 63.4226 BOND

400

SHOGRIN MINERALS INC.

	STOCK-McCANN BLOCK	SURVEY BY: R. Harwood
	BOND TWP. GRID N-38,39	DRAWN BY: L. Collins
		APPROVED BY: D.G. Wahl
	PROTON MAGNETOMETER SURVEY	N.T.S. 42-A/7
		DATE: Aug. 16, 1983
	400	DWG. No. 109 A
	DERRY, MICHENER, BOOTH & WAHL	

REGISTERED PROFESSIONAL ENGINEER D.G. WAHL PROVINCE OF ONTARIO

L-8W L-7W L-6W L-5W L-4W L-3W L-2W L-1W L-0

8N
6N
4N
2N
BL. Az 270°
2S
4S
6S
8S

N-39-7
N-39-6
N-39-5
N-39-4
N-39-3
N-39-2
N-39-1
N-38-7
N-38-1
N-38-2
N-38-3
N-38-4
N-38-5
N-38-6

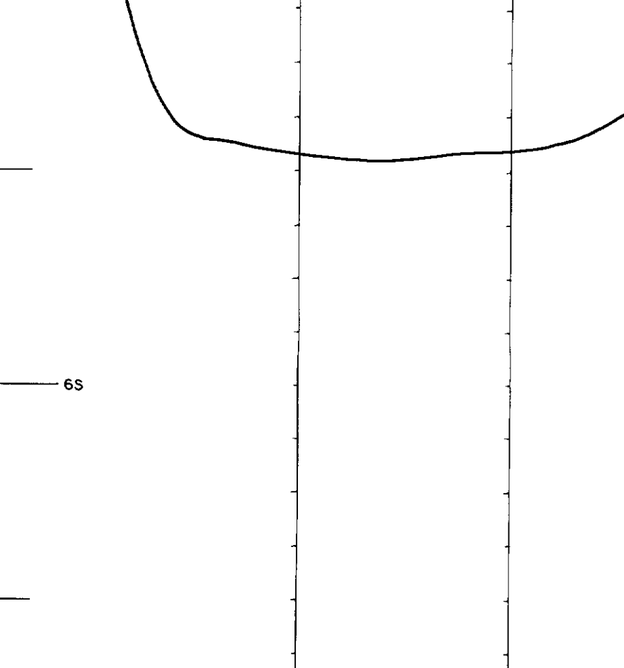
Lake

N

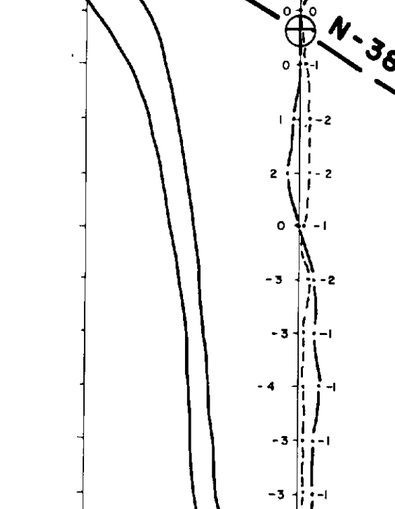
STOCK-McCANN BLOCK

NOTE: All claim block numbers preceded by N.

0 1 2 3 4 5Km



LEGEND



POOR

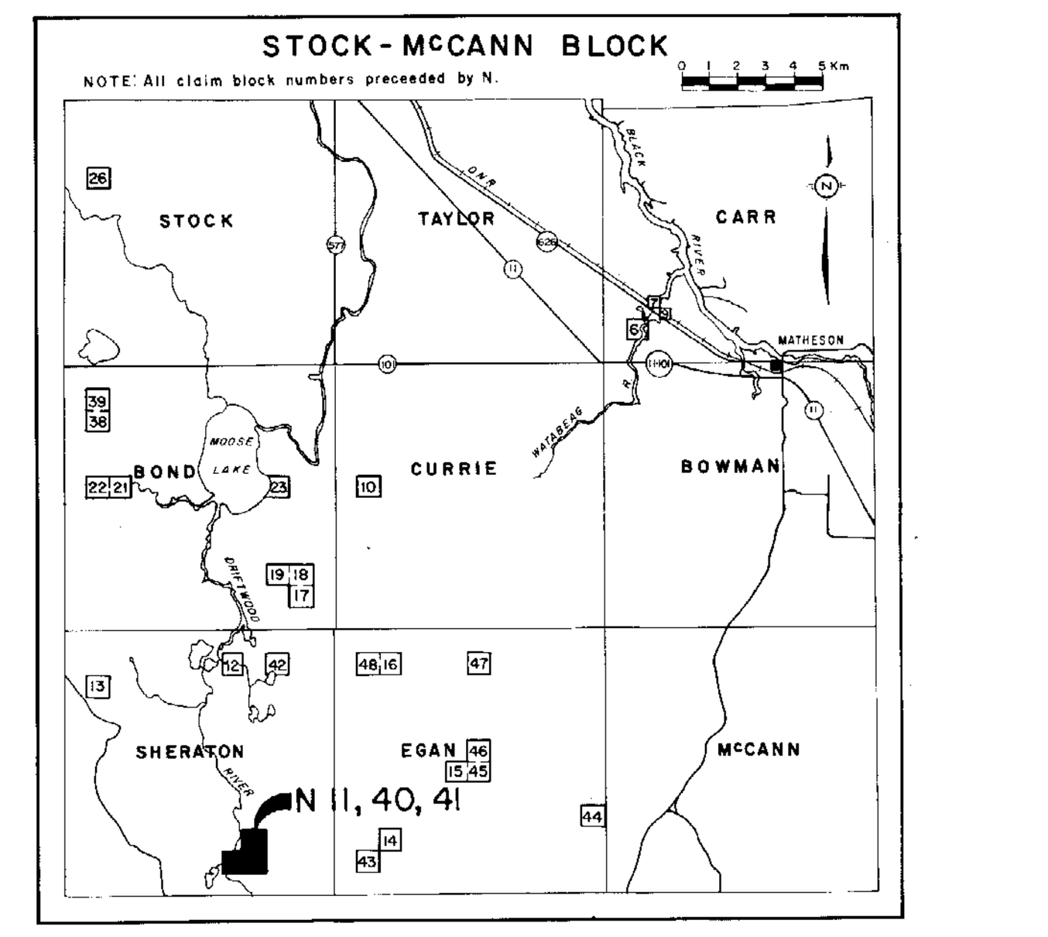
EXCELLENT

0 100 200 300
METRES

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK	SURVEY BY: J. Nikiforuk
BOND TWP. GRID N-38,39	DRAWN BY: G Vance
VLF-EM 16 SURVEY NAA CUTLER, MAINE. 17·8 kHz	APPROVED BY: D.G. Wahl
	N.T.S. 42-A/7
	DATE: Jan., 1984
DERRY, MICHENER, BOOTH & WAHL	DWG. No. 109 B

ENGINEERS PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO



LEGEND

MAFIC INTRUSIVES

10 Fine grained diabase

9 Gabbro

8 Matachewan diabase (feldspar phenocrysts)

FELSIC INTRUSIVES

7 Syenite

6 Granite

METASEDIMENTS

5 Greywacke, siltstone, slate, argillite & minor conglomerate

INTERMEDIATE TO FELSIC METAVOLCANICS

4

MAFIC METAVOLCANICS

3 Mafic Pyroclastics mainly ash tuff, lapilli tuff

2 Tholeiitic Basalt
- a unsubdivided
- b Fe Tholeiitic basalt massive to locally variolitic
- c Mg Tholeiitic basalt massive to locally variolitic

ULTRAMAFIC METAVOLCANICS

1 Komatiitic Basalt

SYMBOLS

br	Breccia
f	Foliated
h	Hornfels
m	Massive
s	Sheared
qv	Quartz vein
qs	Quartz stringers
cr	Carbonate alteration
hs	Hematite staining
py	Pyrite
cpy	Chalcopyrite
mt	Magnetite
	Outcrop
	Area of outcrop
x	Small outcrop
s	Subcrop
	Contact (actual, inferred)
	Fault (defined, approximate, assumed)
	Foliation (strike & dip)
⊗	Sample location N Grid# - sample #
G	Inferred from geophysical data

SCALE

0 100 200 300

METRES

63.4226

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

SHERATON TWP. GRID N-11,40,41

GEOLOGY

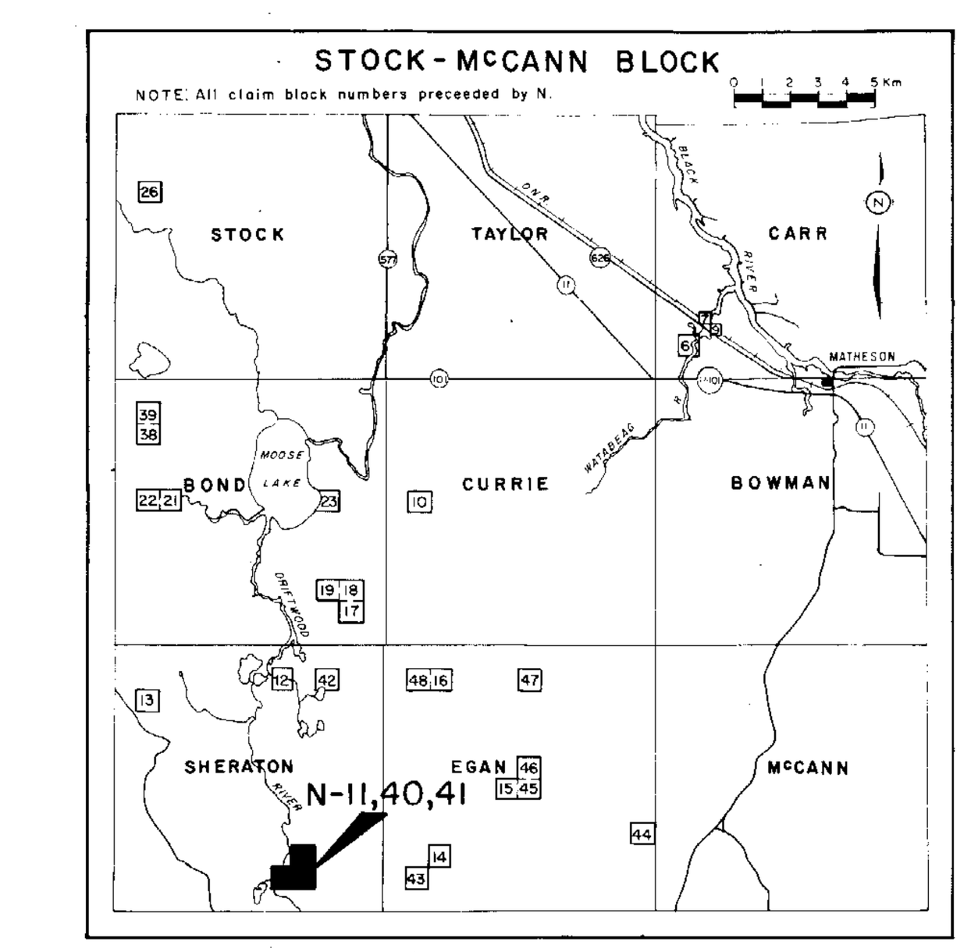
D. G. WAHL — Registered Professional Engineers — Province of Ontario

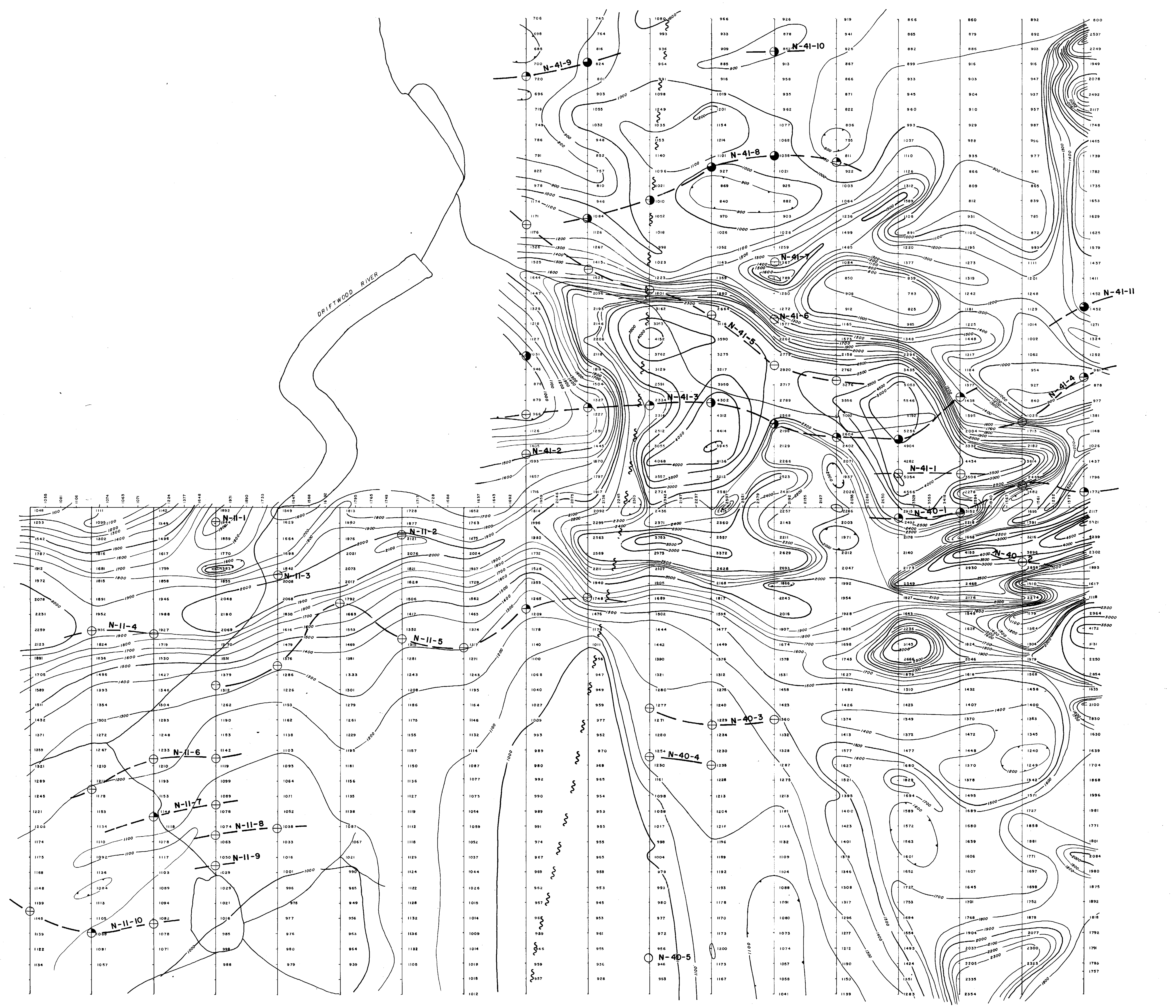
420

DERRY, MICHENER, BOOTH & WAHL

SURVEY BY:	S. McROBERTS
DRAWN BY:	L. COLLINS
APPROVED BY:	W. N. PEARSON
N.T.S.	42-A/7
DATE:	JANUARY, 1984
DWG. No:	102 C

420





LEGEND

1736 Total magnetic field intensity above local background of 58,000 nT

1700 Contour interval 25 nT, 50 nT, 100 nT

VLF-EM Conductor

SCALE

0 100 200 300

METRES

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

SHERATON TWP. GRID N-11,40,41

PROTON MAGNETOMETER SURVEY

SURVEY BY R.HARWOOD

DRAWN BY L.COLLINS

APPROVED BY W.N.PEARSON

N.T.S. 42-A/7

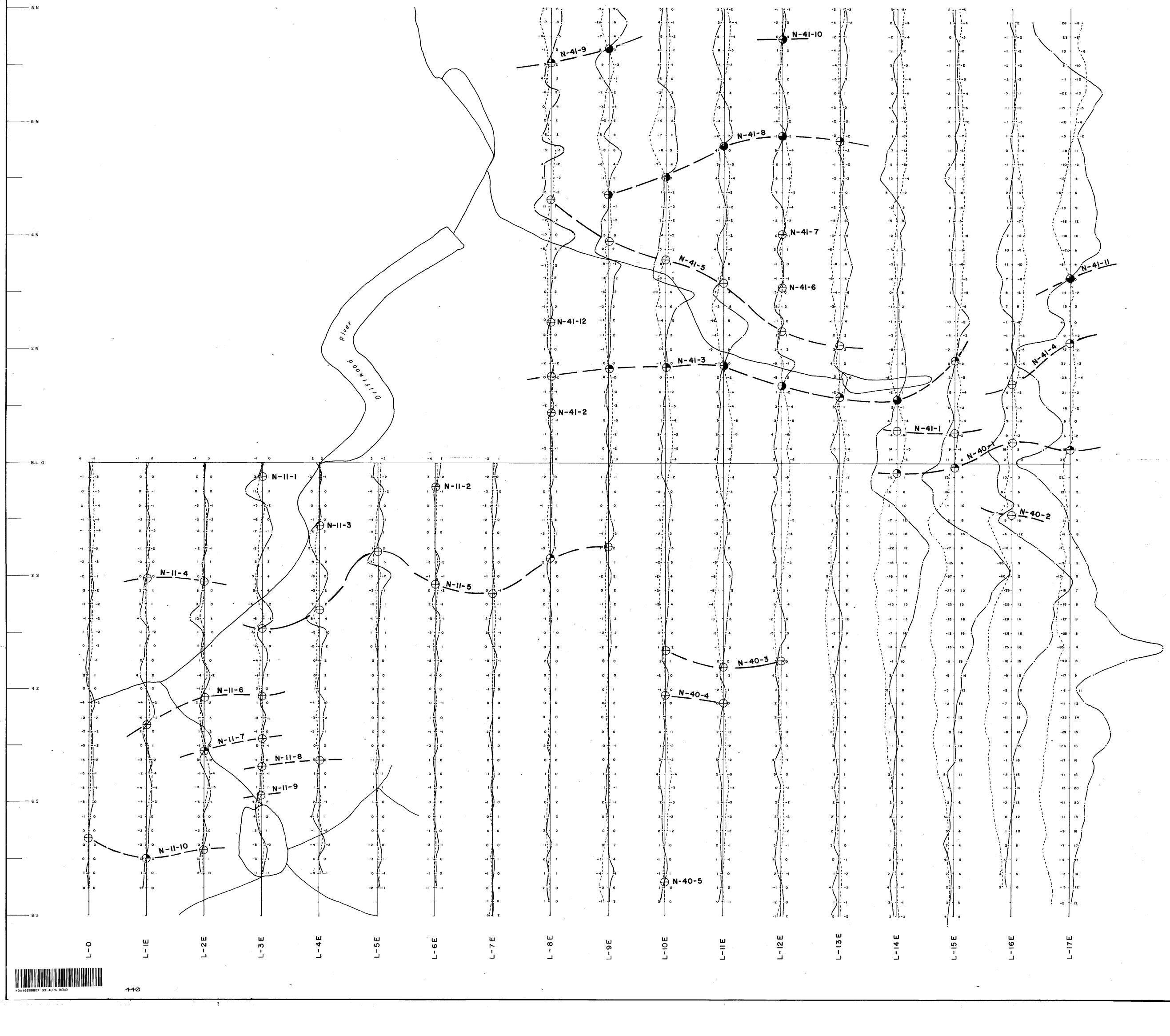
DATE JANUARY, 1984

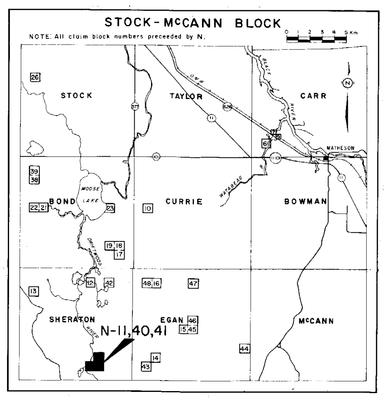
DWG. No. 102 A

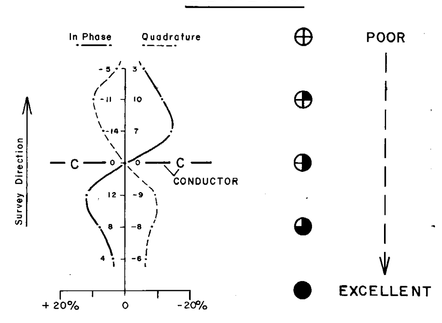
REGISTERED PROFESSIONAL ENGINEER
B. G. WAHL
PROVINCE OF ONTARIO

DERRY, MICHENER, BOOTH & WAHL

430

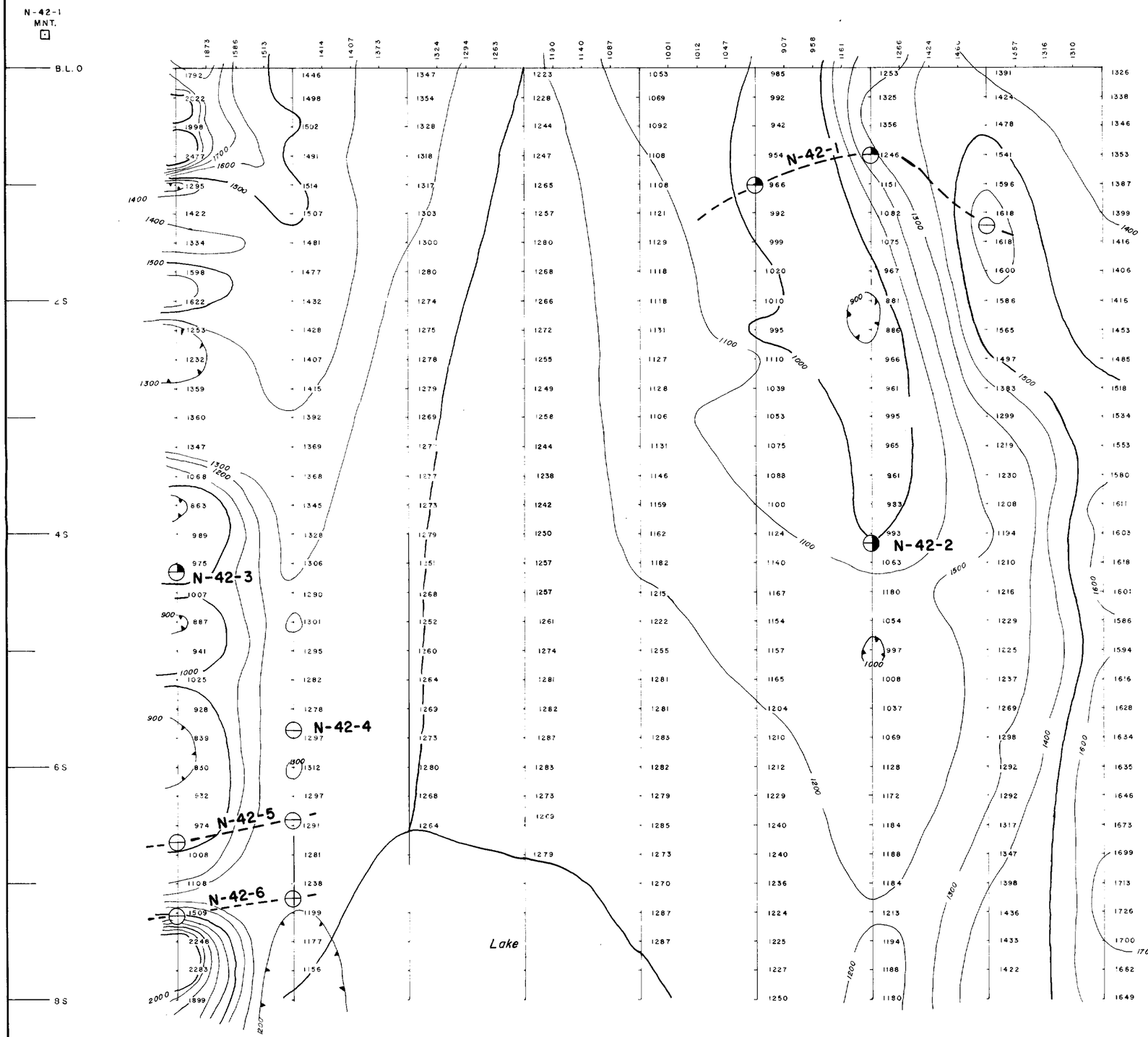


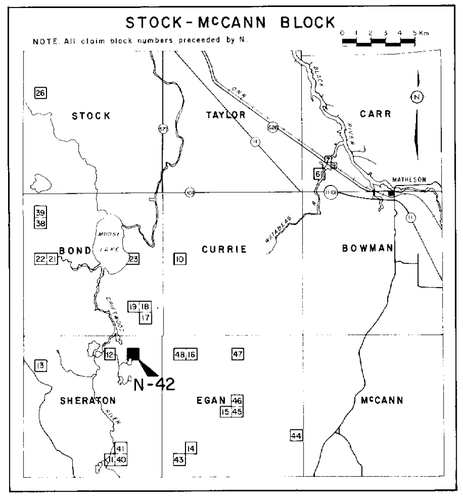




SCALE
0 100 200 300
METRES

SHOGRIN MINERALS INC.		
D. G. WAHL	STOCK-McCANN BLOCK	SURVEY BY: R. Horwood
	SHERATON TWP. GRID N-11,40,41	DRAWN BY: G. Vance
	VLF-EM 16 SURVEY	APPROVED BY: D.G. Wahl
	NAA CUTLER, MAINE 17.8 kHz	N.T.S. 42-A/7
	440	DATE: Jan., 1984
	DERRY, MICHENER, BOOTH & WAHL	DWG. No. 102 B





LEGEND

1736 — Total magnetic field intensity above local background of 58,000 nT

1700 — Contour interval 100 nT, 500 nT, 1000 nT

VLF–EM Conductor

SCALE

0 100 200 300

METRES

63.4226

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

SHERATON TWP. GRID N-42

PROTON MAGNETOMETER SURVEY

450

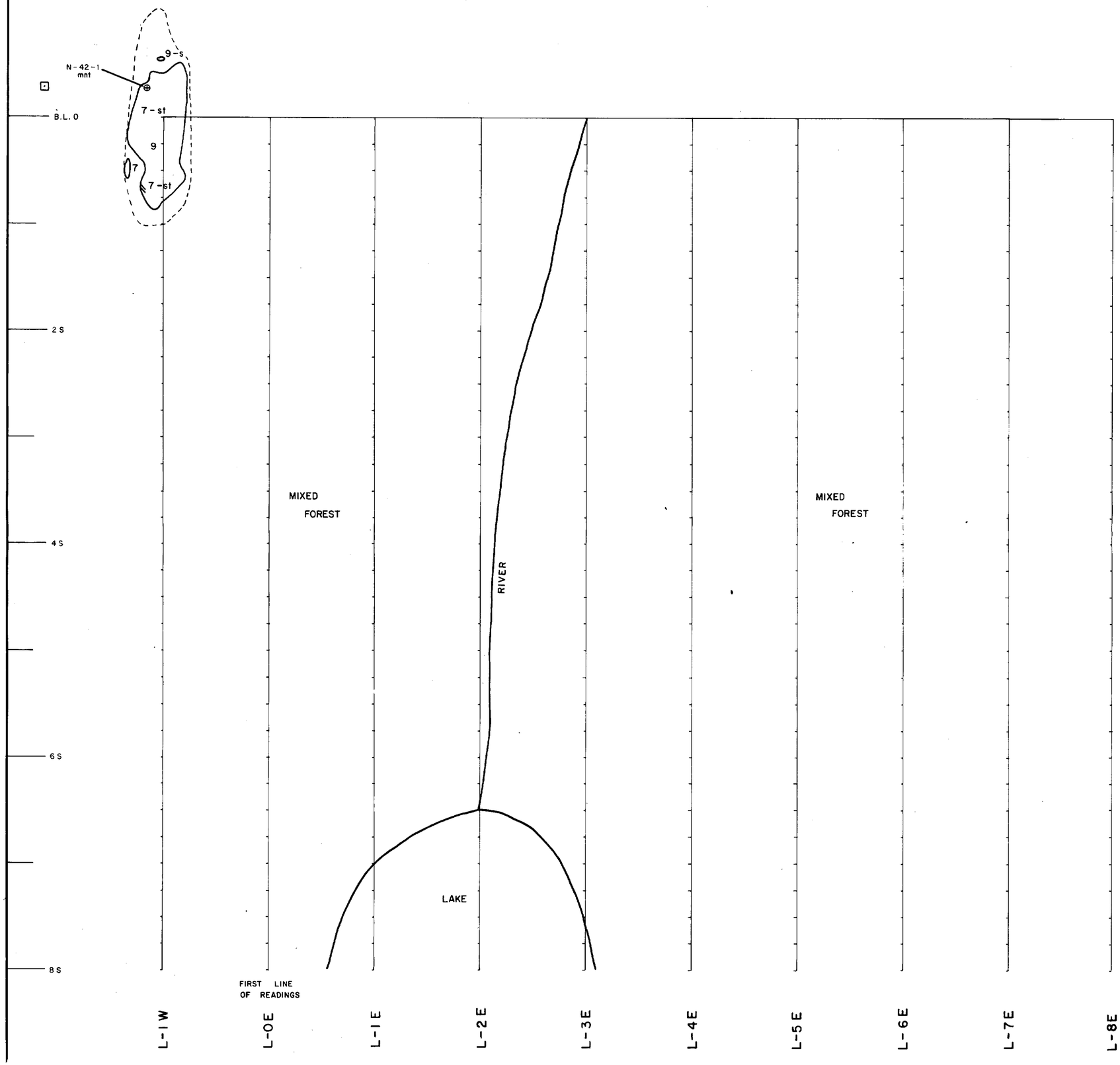
DERRY, MICHENER, BOOTH & WAHL

SURVEY BY	R. Harwood
DRAWN BY	G.V., L.C.
APPROVED BY	D.G. Wahl
N.T.S.	42-A/7
DATE	January, 1984
DWG No	110 A

REGISTERED PROFESSIONAL ENGINEER D.G. WAHL PROVINCE OF ONTARIO

42A10SE8887 63.4226 BOND

450



LEGEND

MAFIC INTRUSIVES

10 Fine grained diabase

9 Gabbro

8 Matachewan diabase (feldspar phenocrysts)

FELSIC INTRUSIVES

7 Syenite

6 Granite

METASEDIMENTS

5 [1] Greywacke, siltstone, slate, argillite & minor conglomerate

INTERMEDIATE TO FELSIC METAVOLCANICS

4

MAFIC METAVOLCANICS

3 Mafic Pyroclastics mainly ash tuff, lapilli tuff

2 Tholeiitic Basalt
- a unsubdivided
- b Fe Tholeiitic basalt massive to locally variolitic
- c Mg Tholeiitic basalt massive to locally variolitic

ULTRAMAFIC METAVOLCANICS

1 Komatiitic Basalt

SYMBOLS

br	Breccia
f	Foliated
h	Hornfels
m	Massive
s	Sheared
qv	Quartz vein
qs	Quartz stringers
cr	Carbonate alteration
hs	Hematite staining
py	Pyrite
cpy	Chalcopyrite
mt	Magnetite

- Outcrop
- Area of outcrop
- x Small outcrop
- s Subcrop
- Contact (actual, inferred)
- Fault (defined, approximate, assumed)
- Foliation (strike & dip)
- ⊗ Sample location N Grid # – sample. #
- G Inferred from geophysical data

SCALE

0 100 200 300

METRES

63.4226

SHOGRIN MINERALS INC.

REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO

STOCK – McCANN BLOCK

SHERATON TWP. GRID N-42

GEOLOGY

460

DERRY, MICHENER, BOOTH & WAHL

SURVEY BY: S. McRoberts

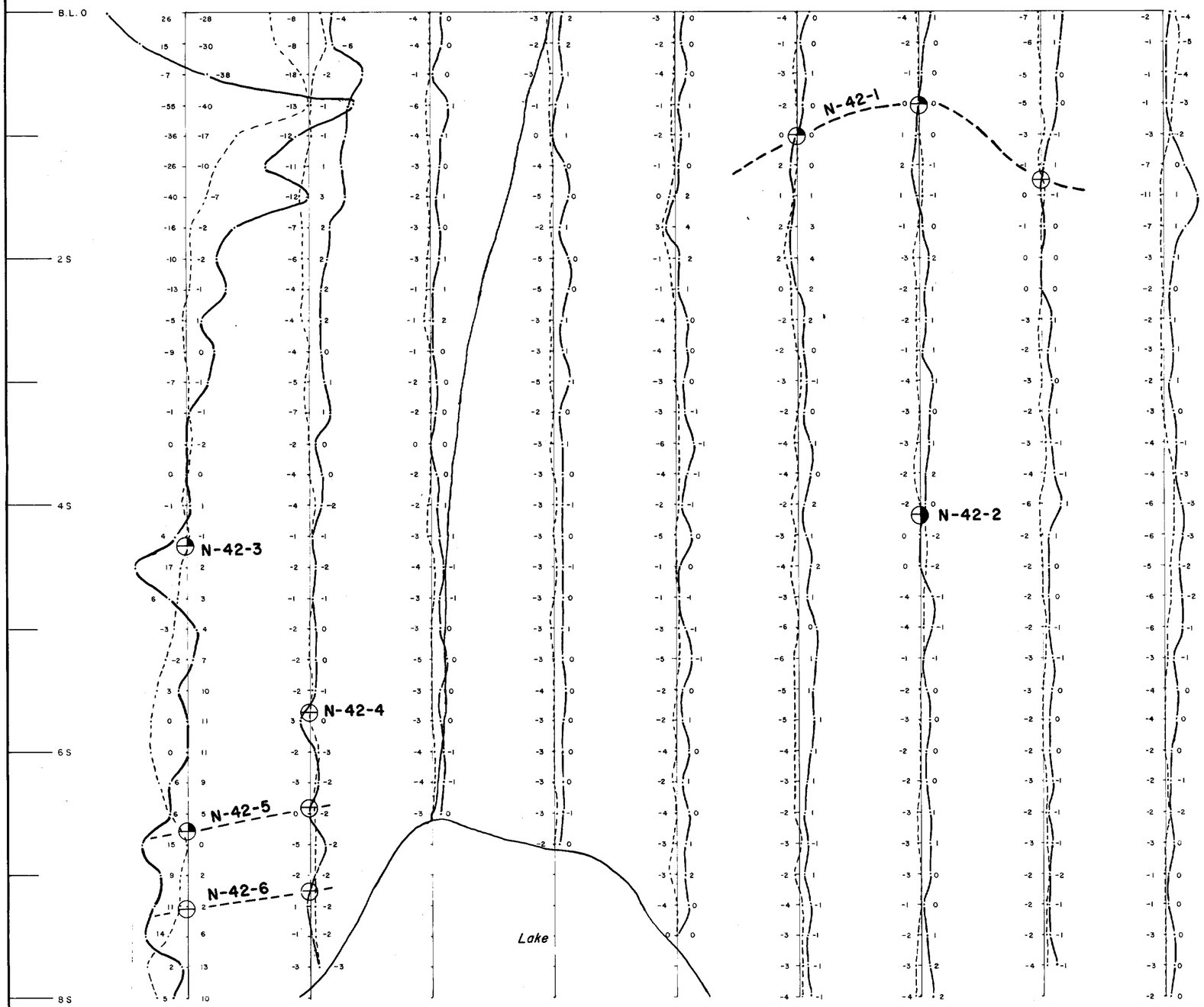
DRAWN BY: T. Grace

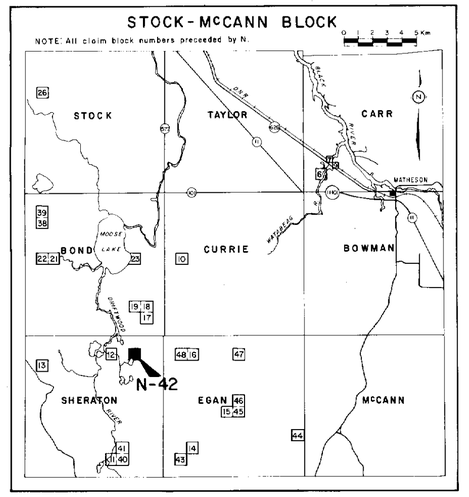
APPROVED BY: D.G. Wahl

N.T.S. 42-A/7

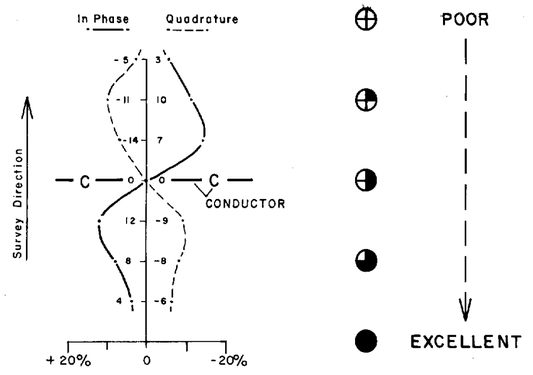
DATE: Jan., 1984

DWG. No 110 C





LEGEND



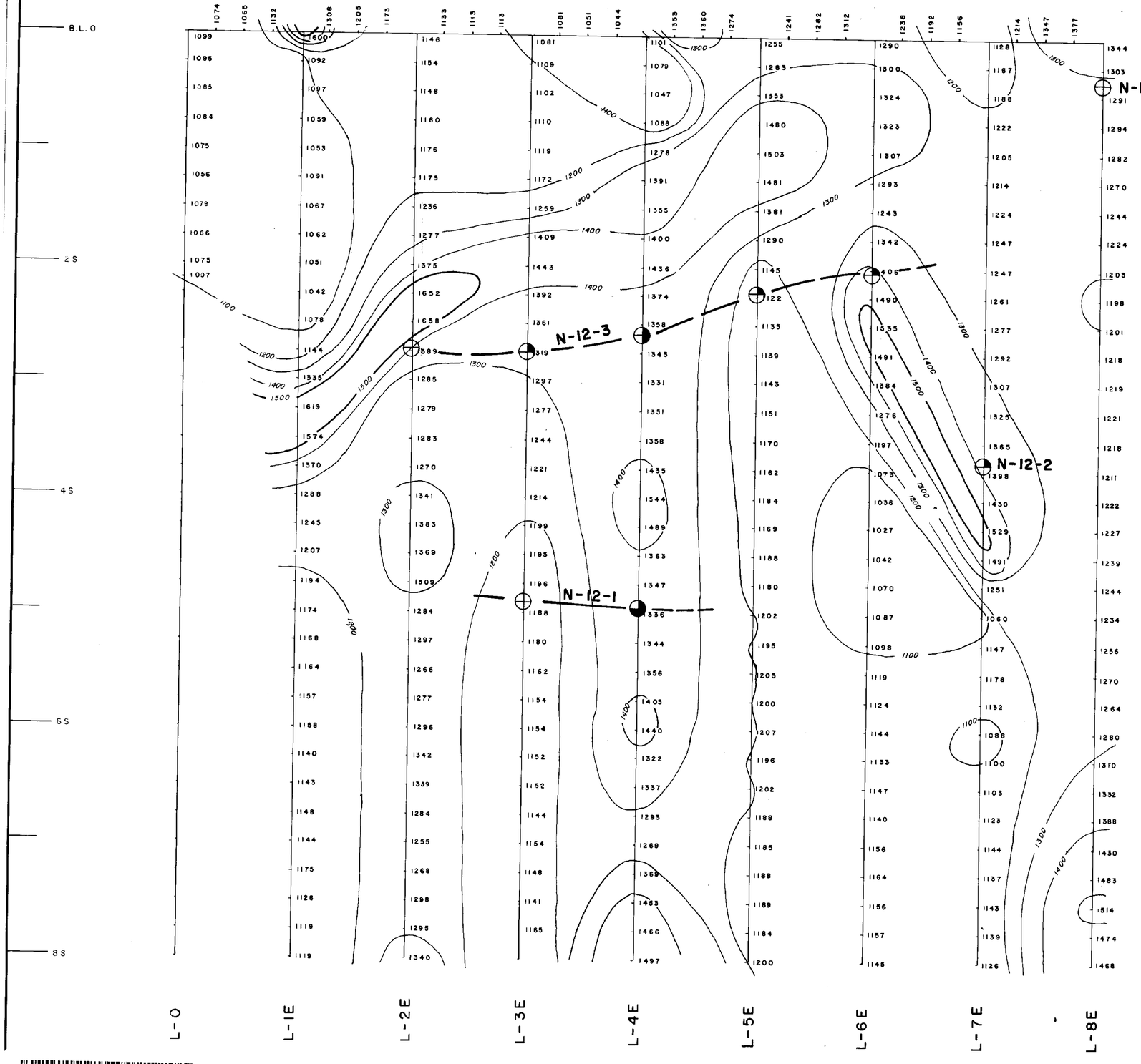
SCALE

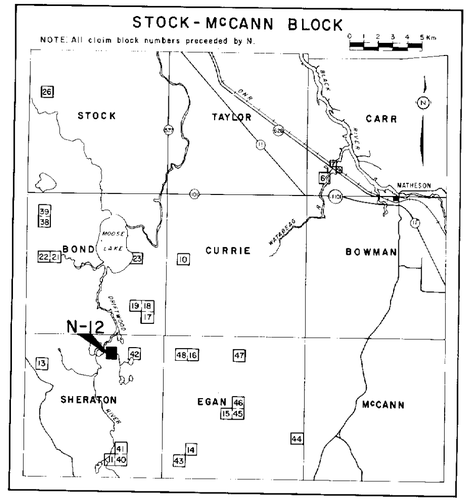
0 100 200 300

METRES

SHOGRIN MINERALS INC.

	STOCK-McCANN BLOCK	SURVEY BY: J. Nikiforuk
	SHERATON TWP. GRID N-42	DRAWN BY: G.V., L.C.
D. G. WAHL REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO	VLF-EM 16 SURVEY NAA CUTLER, MAINE. 17.8 kHz	APPROVED BY: D. G. Wahl
		N.T.S. 42-A/7
		DATE: January, 1984
	DERRY, MICHENER, BOOTH & WAHL	DWG. No 110 B





LEGEND

1736 — Total magnetic field intensity above local background of 58,000 nT

1700 — Contour interval 100 nT, 500 nT, 1000 nT

VLF-EM Conductor

SCALE

0 100 200 300

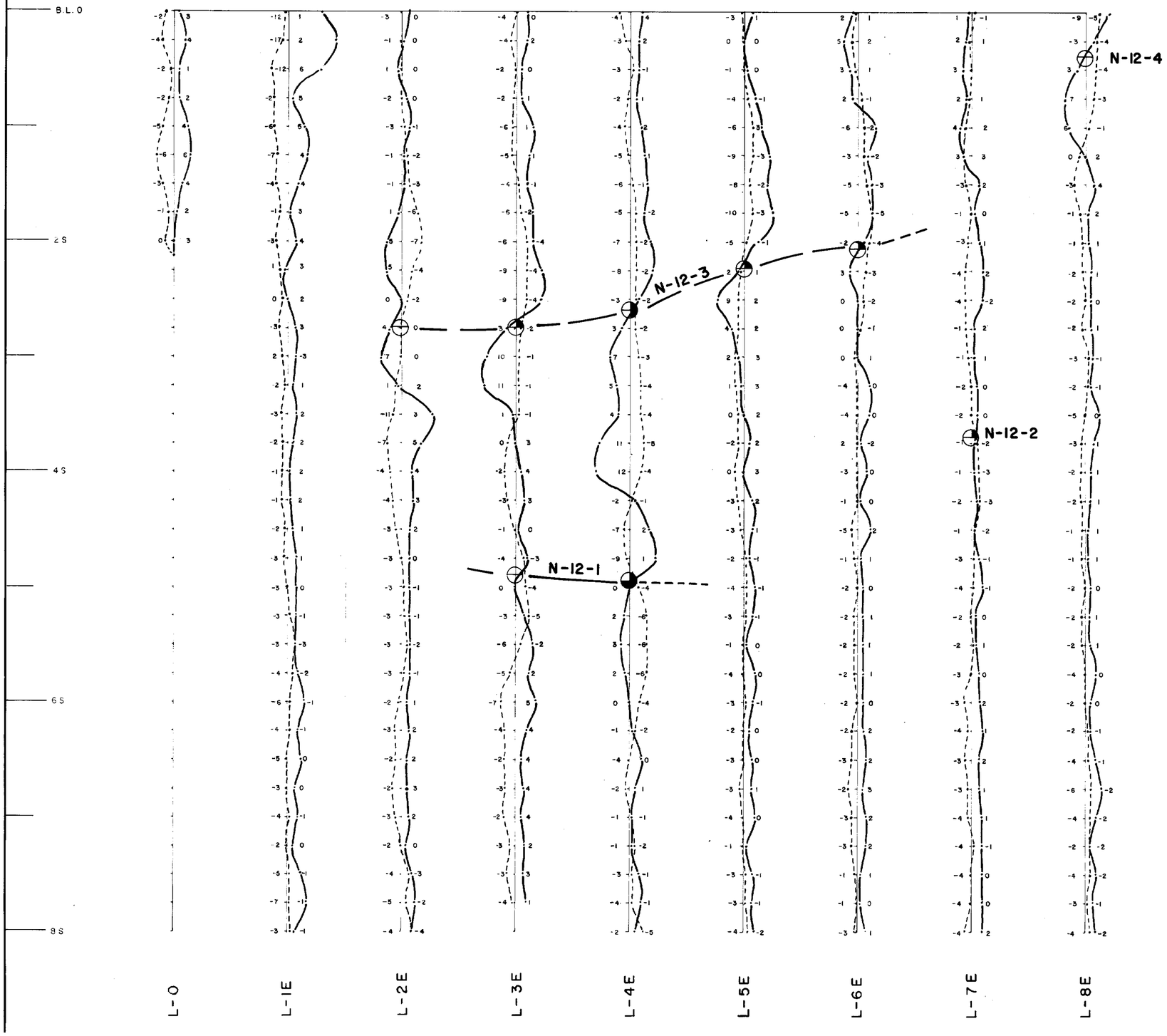
METRES

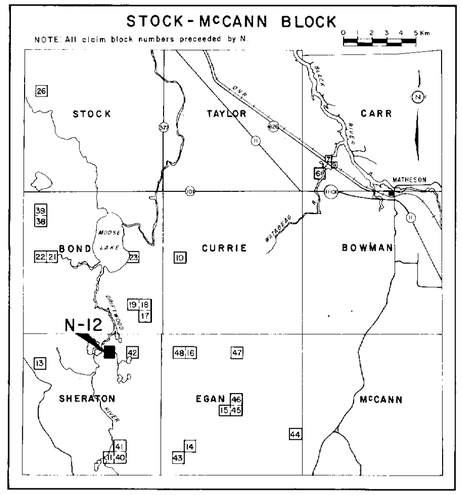
SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK	SURVEY BY: R. Harwood
SHERATON TWP. GRID N-12	DRAWN BY: G. Vance
	APPROVED BY: D.G. Wahl
PROTON MAGNETOMETER SURVEY	N.T.S. 42-A/7
	DATE: Jan., 1984
DERRY, MICHENER, BOOTH & WAHL	DWG. No 103 A

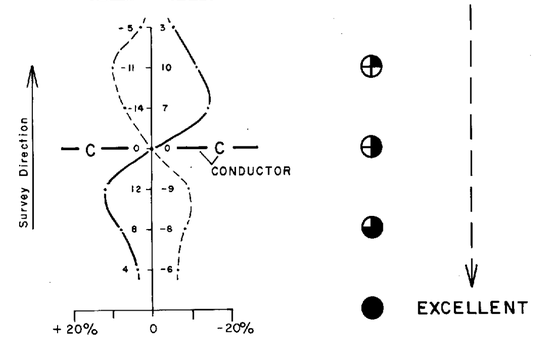
REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO

42A10SE8887 63.4226 BOND



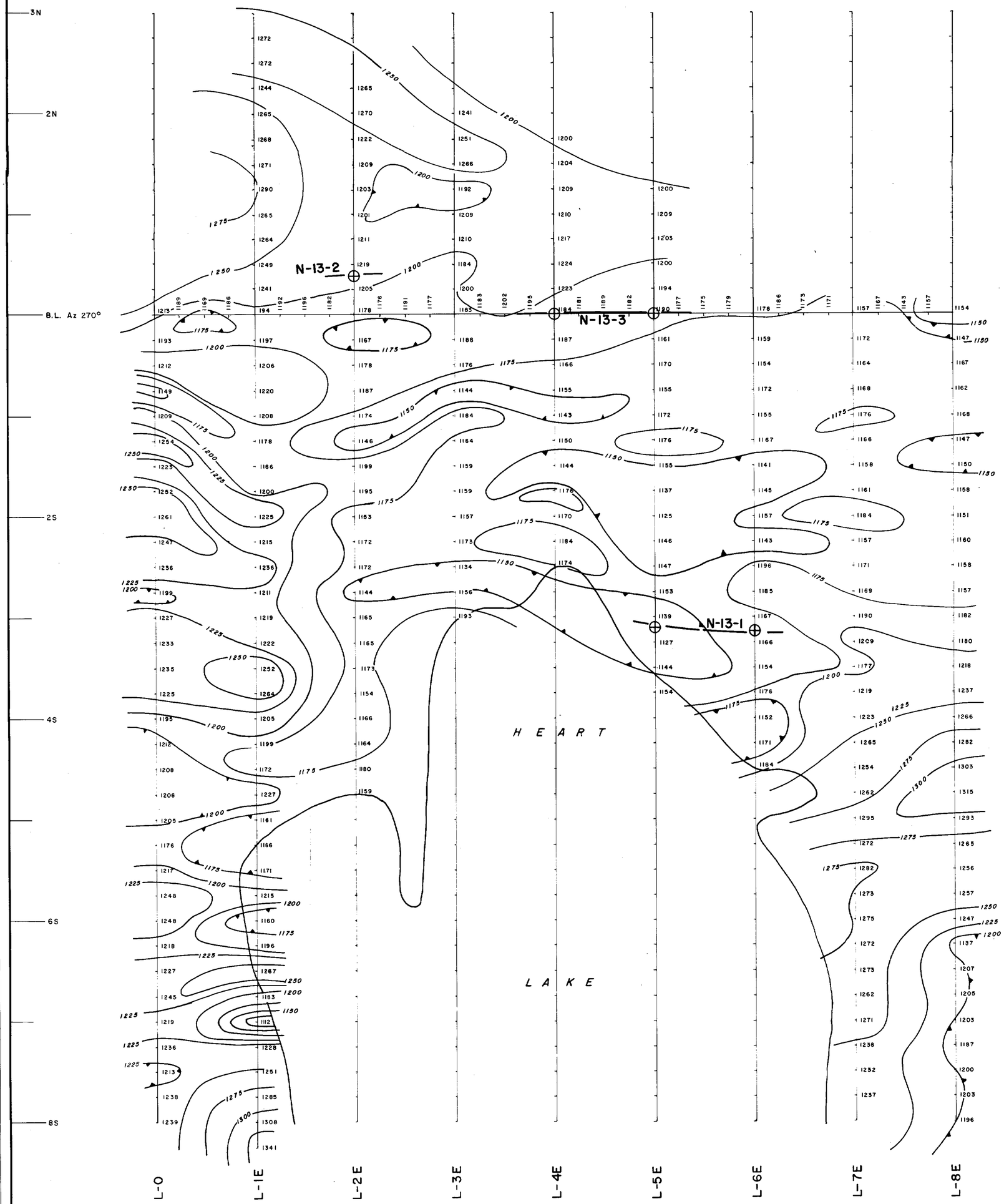


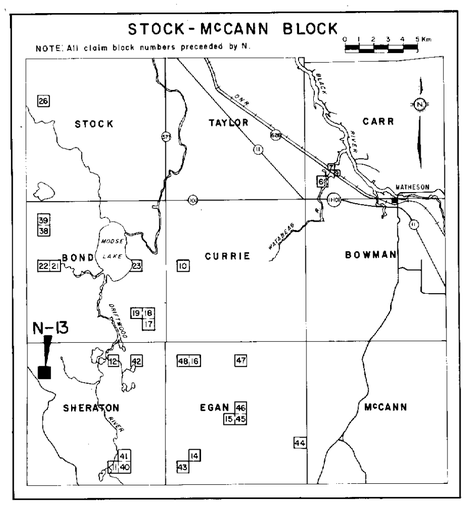
LEGEND



SCALE
0 100 200 300
METRES

SHOGRIN MINERALS INC.		
D. G. WAHL REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO	STOCK-McCANN BLOCK	SURVEY BY: J. Nikiforuk
	SHERATON TWP. GRID N-12	DRAWN BY: G.V., L.C.
	VLF-EM 16 SURVEY NAA CUTLER, MAINE 17.8 kHz	APPROVED BY: D.G. Wahl
		N.T.S. 42-A/7
		DATE: January, 1984
		DWG. No. 103 B
	DERRY, MICHENER, BOOTH & WAHL	





LEGEND

- 1736 — Total magnetic field intensity above local background of 58,000 nT
- 1700 — Contour interval 100 nT, 500 nT, 1000 nT
- VLF-EM Conductor

SCALE

0 100 200 300

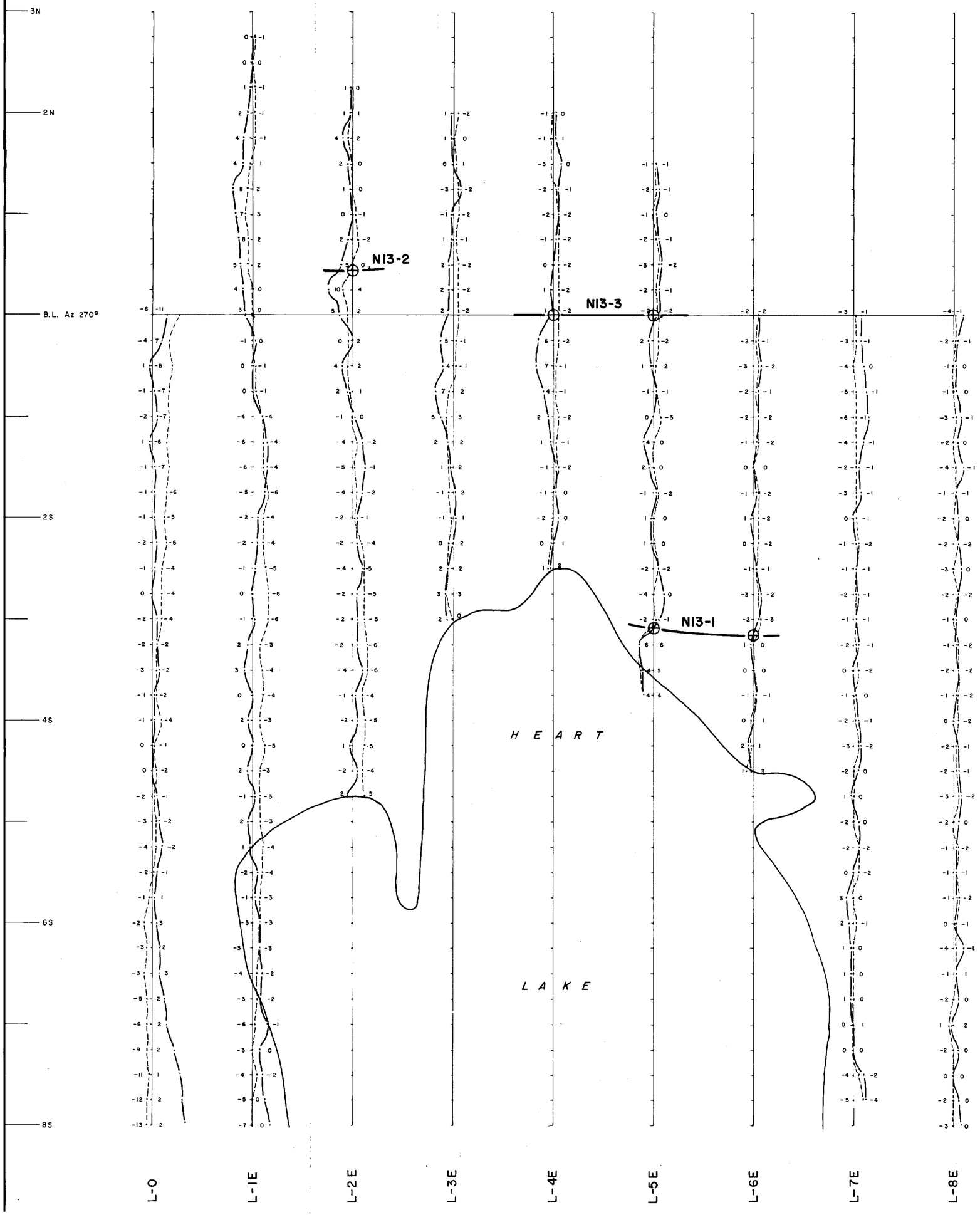
METRES

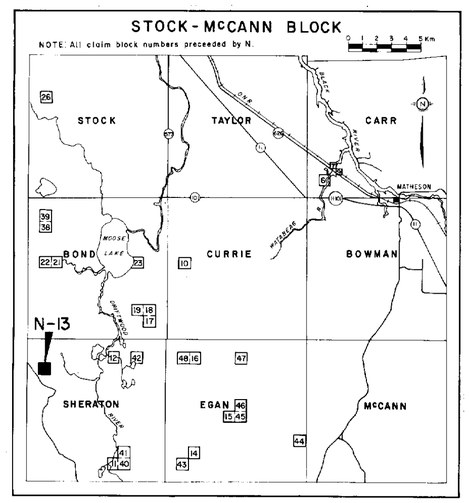
63.4226

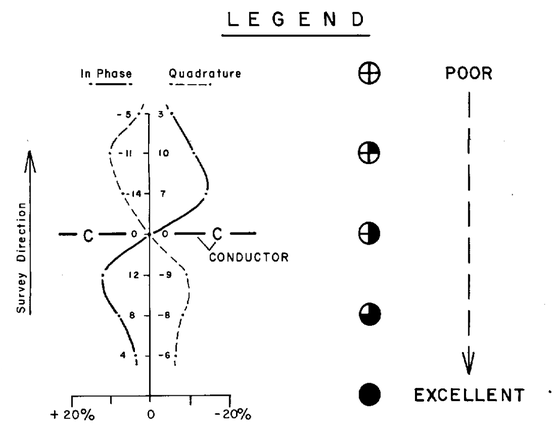
SHOGRIN MINERALS INC.

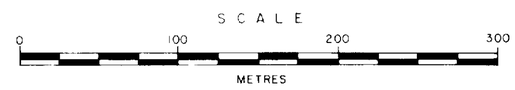
	STOCK - McCANN BLOCK	SURVEY BY: R. HARWOOD
	SHERATON TWP. GRID N-13	DRAWN BY: G.V. / g.m.e.s.
D. G. WAHL REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO	PROTON MAGNETOMETER SURVEY	APPROVED BY: D. WAHL
		N.T.S. 42-A/7
		DATE: SEPT., 1983
	DERRY, MICHENER, BOOTH & WAHL	DWG. No 104 A

500







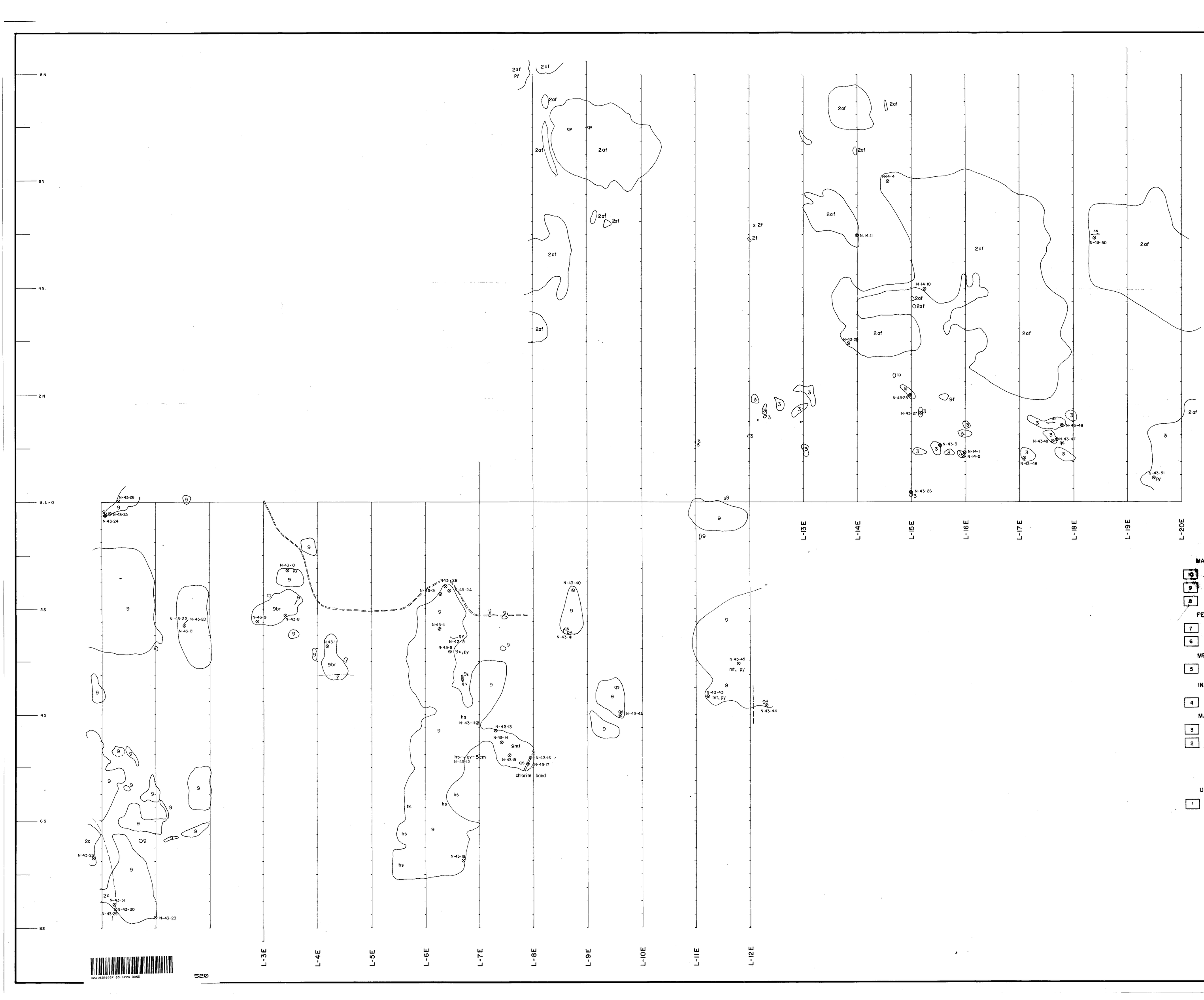


SHOGRIN MINERALS INC.

STOCK - McCANN BLOCK	SURVEY BY J.NIKIFORUK
SHERATON TWP. GRID N-13	DRAWN BY G.V.
	APPROVED BY D.WAHL
VLF-EM 16 SURVEY	N.T.S. 42-A/7
NAA CUTLER, MAINE. 17.8 kHz	DATE SEPT., 1983
	DWG. No 104 B
DERRY, MICHENER, BOOTH & WAHL	

REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO

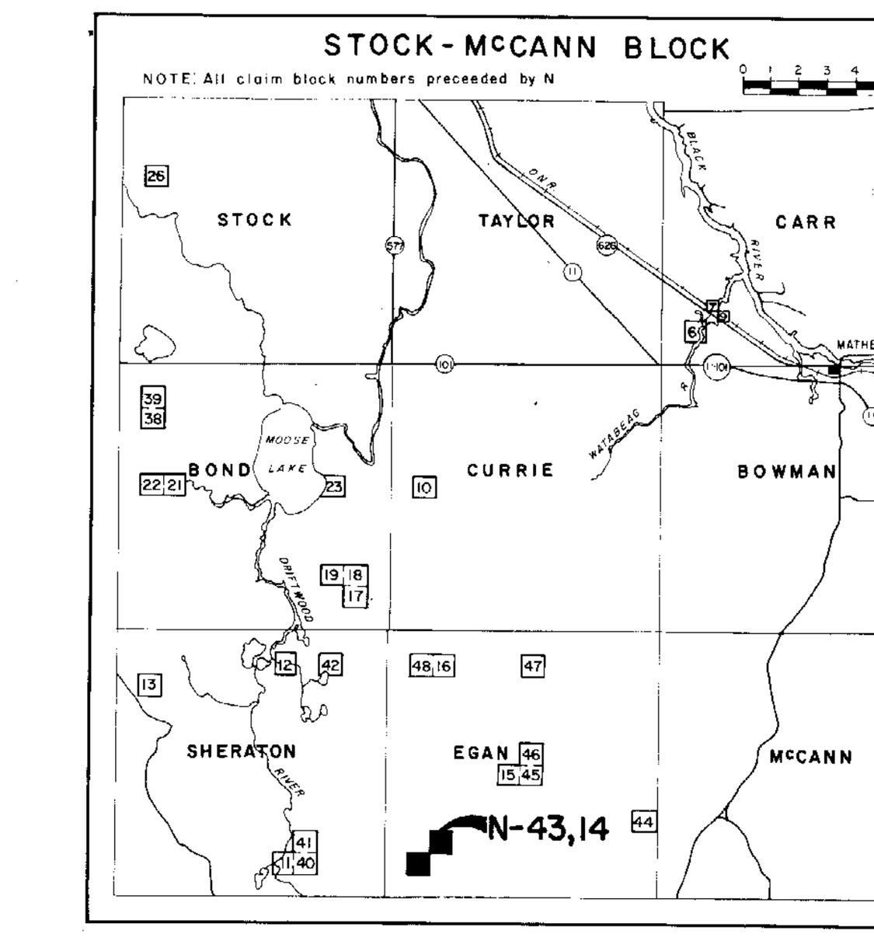
42A10SE8887 63.4226 BOND

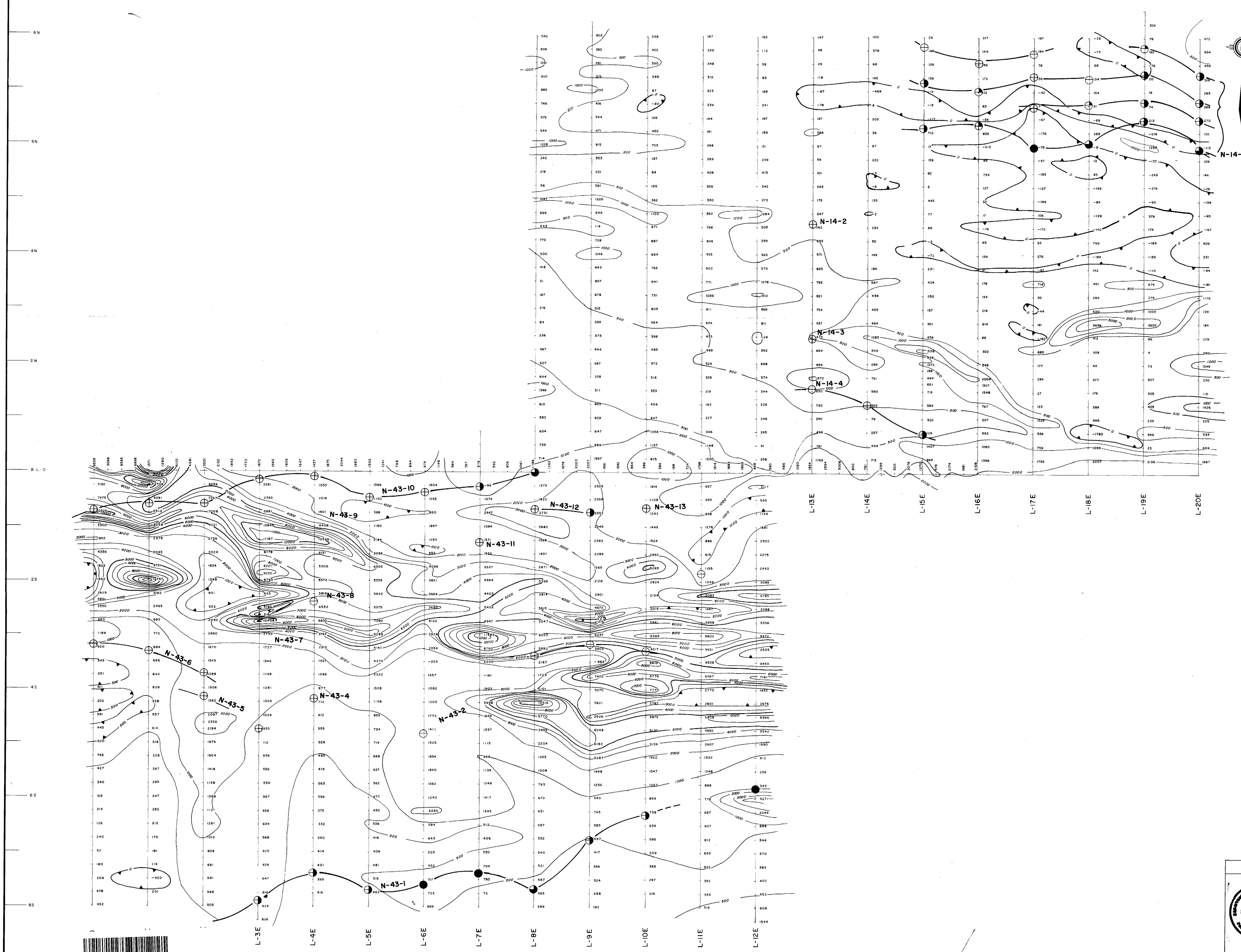


SHOGRIN MINERALS INC.

REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO	STOCK-McCANN BLOCK	SURVEY BY: J.NIKIFORUK
	EGAN TWP., GRID N-43, N-14	DRAWN BY: G.M.A.S.
		APPROVED BY: N.T.S.
	GEOLOGY	DATE: AUG./1983
	63.4226 520	DWG. No. III C
	DERRY, MICHENER, BOOTH & WAHL	

520





LEGEND

1736 — Total magnetic field intensity above local background of 58,000 nT

1000 — Contour interval 500 nT, 1000 nT

VLF-EM Conductor

SCALE

0 100 200 300

METRES

634226

SHOGRIN MINERALS INC.

STOCK - McCANN BLOCK

EGAN TWP, GRID N-43, N-14

PROTON MAGNETOMETER SURVEY

530

D. G. WAHL

SURVEY BY	J. NIKIFORUK
DRAWN BY	g.m.e.s.
APPROVED BY	D. G. Wahl
N.T.S.	42-A/7
DATE	AUG. 1983
DWG. No.	III A

DERRY, MICHENER, BOOTH & WAHL

530

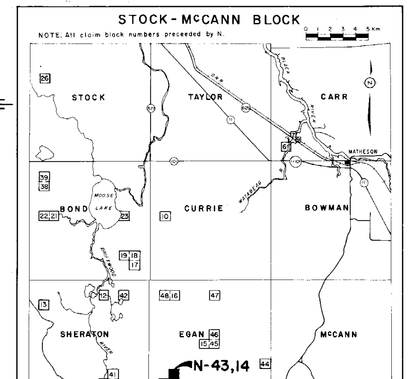
8N
6N
4N
2N
B.L.-0
2S
4S
6S
8S

L-1E L-2E L-3E L-4E L-5E L-6E L-7E L-8E L-9E L-10E L-11E L-12E L-13E L-14E L-15E L-16E L-17E L-18E L-19E L-20E

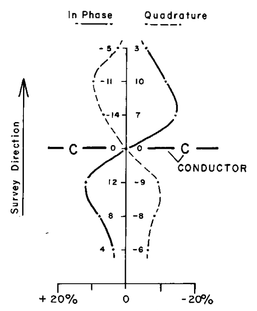
N-14-1
N-14-2
N-14-3
N-43-4
N-43-1
N-43-2
N-43-3
N-43-4
N-43-5
N-43-6
N-43-7
N-43-8
N-43-9
N-43-10
N-43-11
N-43-12
N-43-13
N-43-14

STOCK-McCANN BLOCK

NOTE: All claim block numbers preceded by N.



LEGEND



POOR

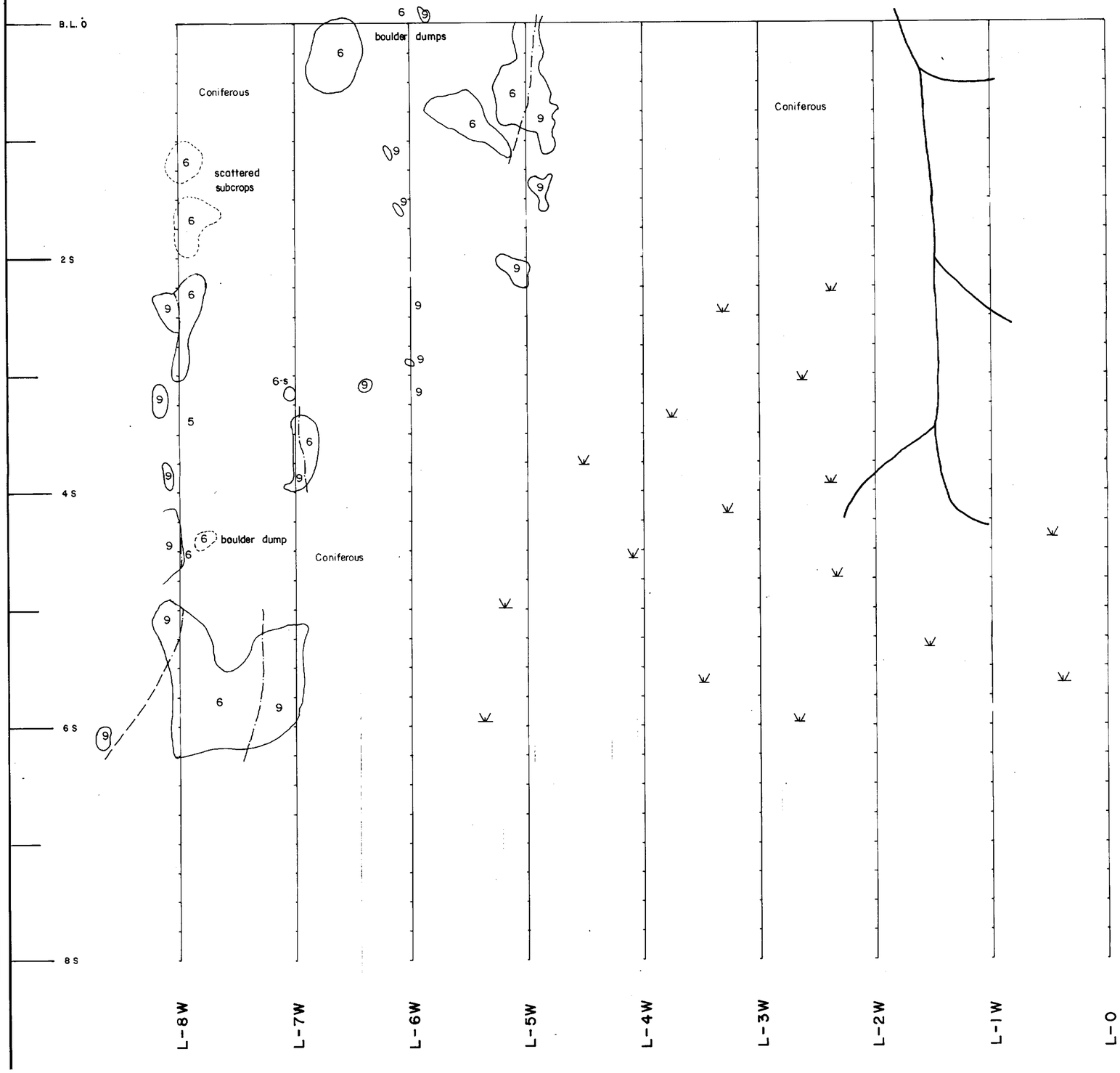
EXCELLENT

0 100 200 300
METRES

SHOGRIN MINERALS INC.		
	STOCK - McCANN BLOCK	SURVEY BY: J. NIKIFORUK
	EGAN TWP., GRID N-43, N-14	DRAWN BY: S.M.E.S.
D.G. WAHL PROFESSIONAL ENGINEER PROVINCE OF ONTARIO	VLF-EM 16 SURVEY NAA CUTLER, MAINE 17.8 kHz	APPROVED BY: D.G. Wahl
		N.T.S.: 42-A/7
		DATE: AUG. 1983
	DERRY, MICHENER, BOOTH & WAHL	DWG. No.: III B

42A10SE8887 63.4225 BOND

540



LEGEND

MAFIC INTRUSIVES

- 10 Fine grained diabase
- 9 Gabbro
- 8 Matachewan diabase (feldspar phenocrysts)

FELSIC INTRUSIVES

- 7 Syenite
- 6 Granite

METASEDIMENTS

- 5 Greywacke, siltstone, slate, argillite & minor conglomerate

INTERMEDIATE TO FELSIC METAVOLCANICS

- 4

MAFIC METAVOLCANICS

- 3 Mafic Pyroclastics mainly ash tuff, lapilli tuff
- 2 Tholeiitic Basalt
  - a unsubdivided
  - b Fe Tholeiitic basalt massive to locally variolitic
  - c Mg Tholeiitic basalt massive to locally variolitic

ULTRAMAFIC METAVOLCANICS

- 1 Komatiitic Basalt

SYMBOLS

br	Breccia
f	Foliated
h	Hornfels
m	Massive
s	Sheared
qv	Quartz vein
qs	Quartz stringers
cr	Carbonate alteration
hs	Hematite staining
py	Pyrite
cpy	Chalcopyrite
mt	Magnetite
⬭	Outcrop
⬭ (dashed)	Area of outcrop
x	Small outcrop
s	Subcrop
/ /	Contact (actual, inferred)
≈ ≈	Fault (defined, approximate, assumed)
	Foliation (strike & dip)
⊗	Sample location N Grid # – sample. #
G	Inferred from geophysical data

SCALE

0 100 200 300

METRES

63.4226

SHOGRIN MINERALS INC.

STOCK – McCANN BLOCK

EGAN TWP. GRID N-44

GEOLOGY

SURVEY BY S. McRoberts

DRAWN BY J. Sedore

APPROVED BY D.G. Wahl

N.T.S. 42-A/7

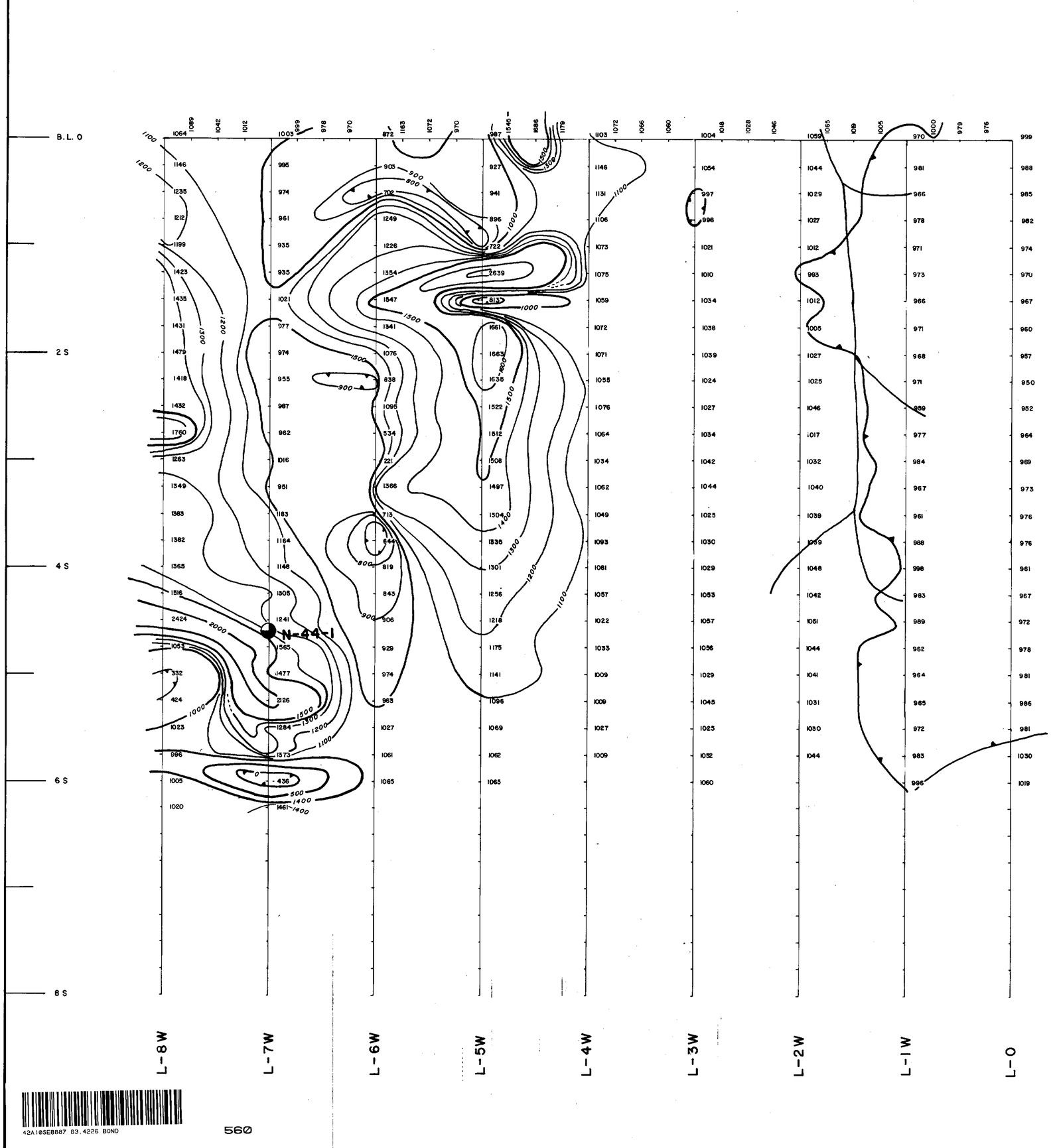
DATE: Jan., 1984

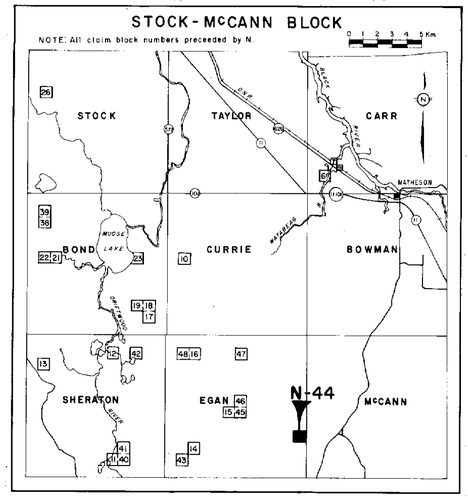
DWG. No. 112 C

REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO

DERRY, MICHENER, BOOTH & WAHL

550





LEGEND

1736 — Total magnetic field intensity above local background of 58,000 nT

1700 — Contour interval 25 nT, 50 nT, 100 nT

VLF-EM Conductor

SCALE

0 100 200 300

METRES

634226

SHOGRIN MINERALS INC.

	STOCK-McCANN BLOCK	SURVEY BY: R. Harwood
	EGAN TWP. GRID N-44	DRAWN BY: G. Vance
D. G. WAHL — REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF ONTARIO	PROTON MAGNETOMETER SURVEY	APPROVED BY: D. G. Wahl
		N.T.S: 42-A/7
		DATE: Jan., 1984
	560	DWG. No. 112 A
	DERRY, MICHENER, BOOTH & WAHL	

42A10SE8887 63.4226 BOND

560

B.L. 0

2 S

4 S

6 S

8 S

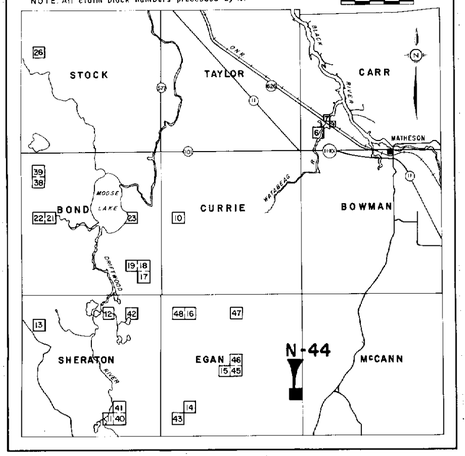
N-44-1

L-8W L-7W L-6W L-5W L-4W L-3W L-2W L-1W L-0

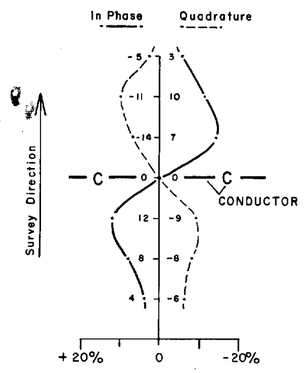
STOCK-McCANN BLOCK

NOTE: All claim block numbers preceeded by N.

0 1 2 3 4 5 Km



LEGEND



SCALE

0 100 200 300

METRES

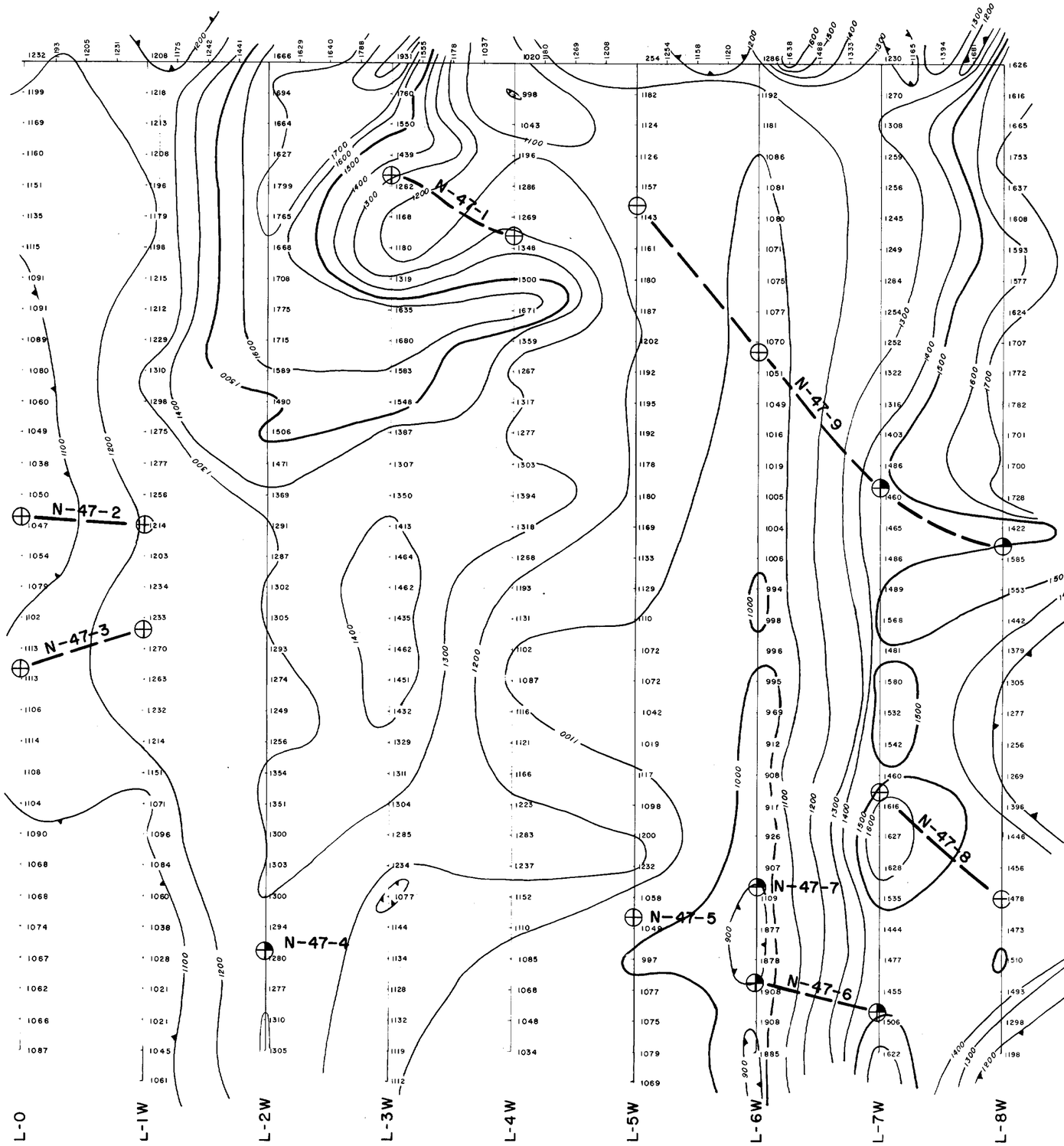
SHOGRIN MINERALS INC.

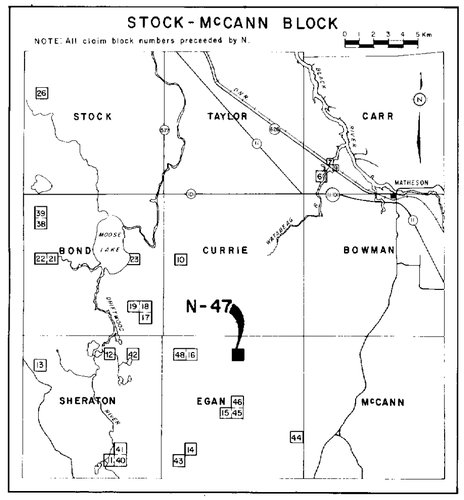
	STOCK – McCANN BLOCK	SURVEY BY J. Nikiforuk
	EGAN TWP. GRID N-44	DRAWN BY G. Vance
		APPROVED BY D.G. Wahl
	VLF - EM 16 SURVEY	N.T.S. 42-A/7
	NAA CUTLER, MAINE 17·8 kHz	DATE: Jan., 1984
		DWG. No. 112 B
	DERRY, MICHENER, BOOTH & WAHL	

REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO

42A10SE8887 63.4226 BOND

570





LEGEND

278 — Total magnetic field intensity above local background of 58,000 nT

1700 — Contour interval 100 nT, 500 nT

VLF-EM Conductor

0 100 200 300
METRES

634226

SHOGRIN MINERALS INC.

STOCK - McCANN BLOCK

EGAN TWP., GRID N-47

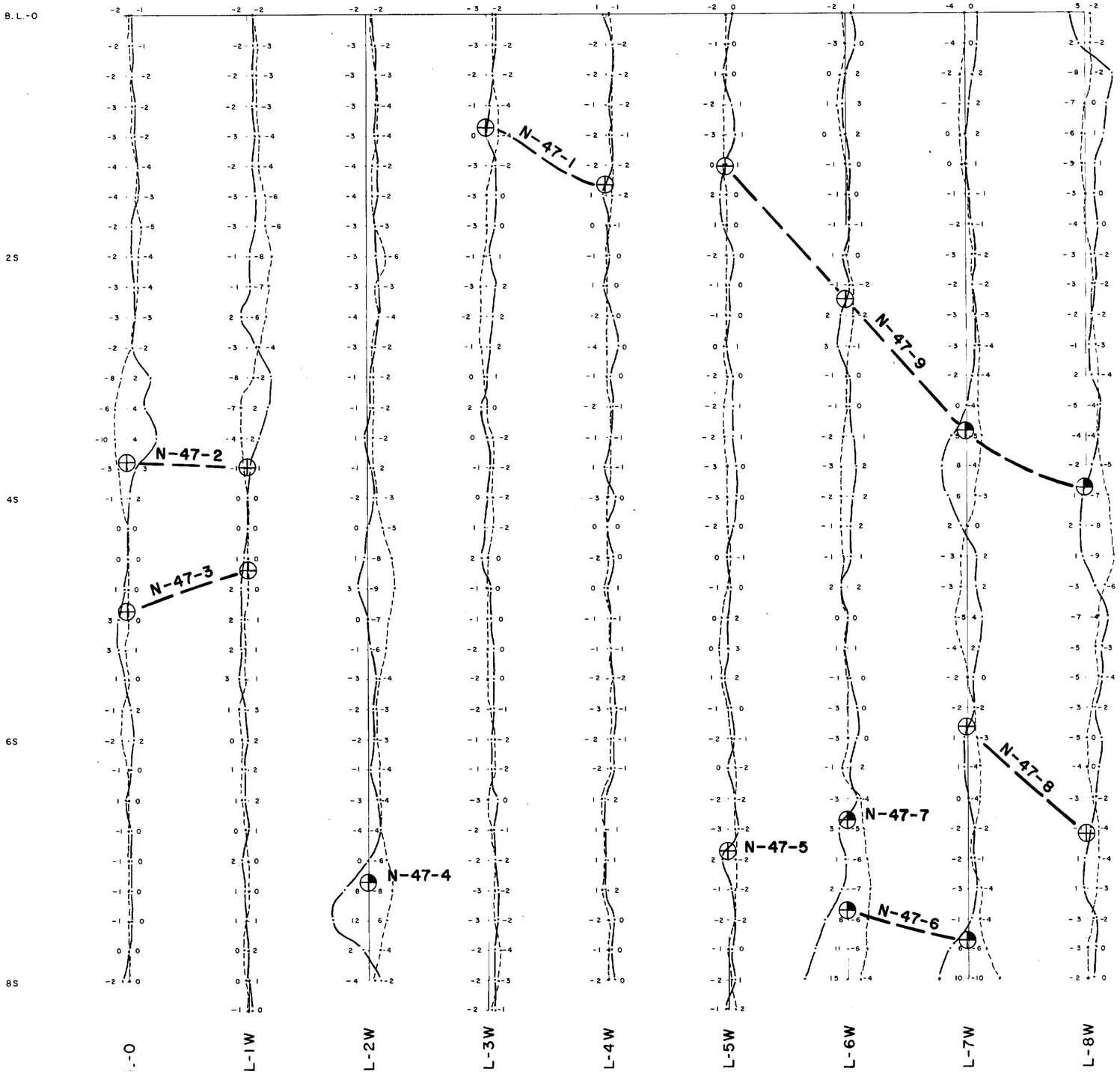
PROTON MAGNETOMETER SURVEY

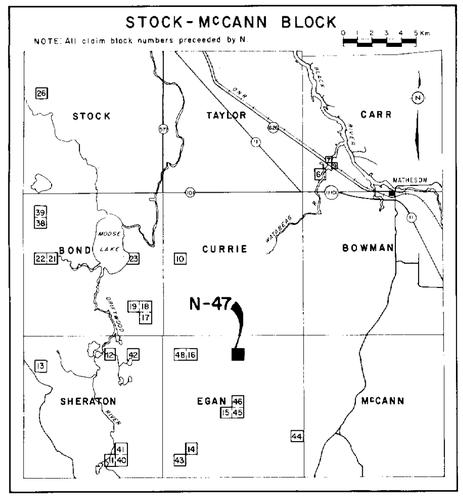
580

DERRY, MICHENER, BOOTH & WAHL

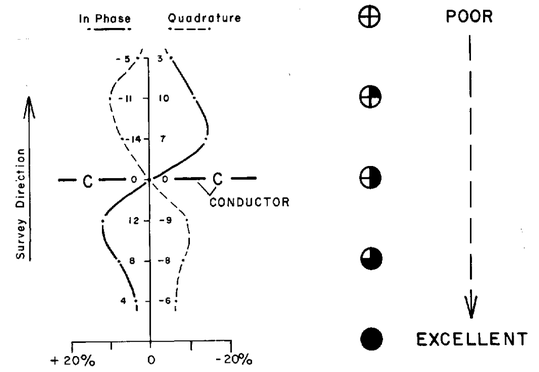
SURVEY BY: J. NIKIFORUK
DRAWN BY: g.m.e.s.
APPROVED BY: D.G. Wahl
N.T.S.: 42-A/7
DATE: AUG., 1983
DWG. NO.: 113 A

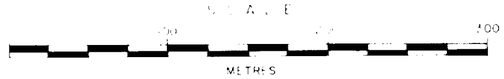
D. G. WAHL — REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF ONTARIO





LEGEND





SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

EGAN TWP., GRID N-47

VLF-EM 16 SURVEY

NAA CUTLER, MAINE 17.8 kHz

590

DERRY, MICHENER, BOOTH & WAHL

SURVEY BY: J. NIKIFORUK

DRAWN BY: g.m.e.s.

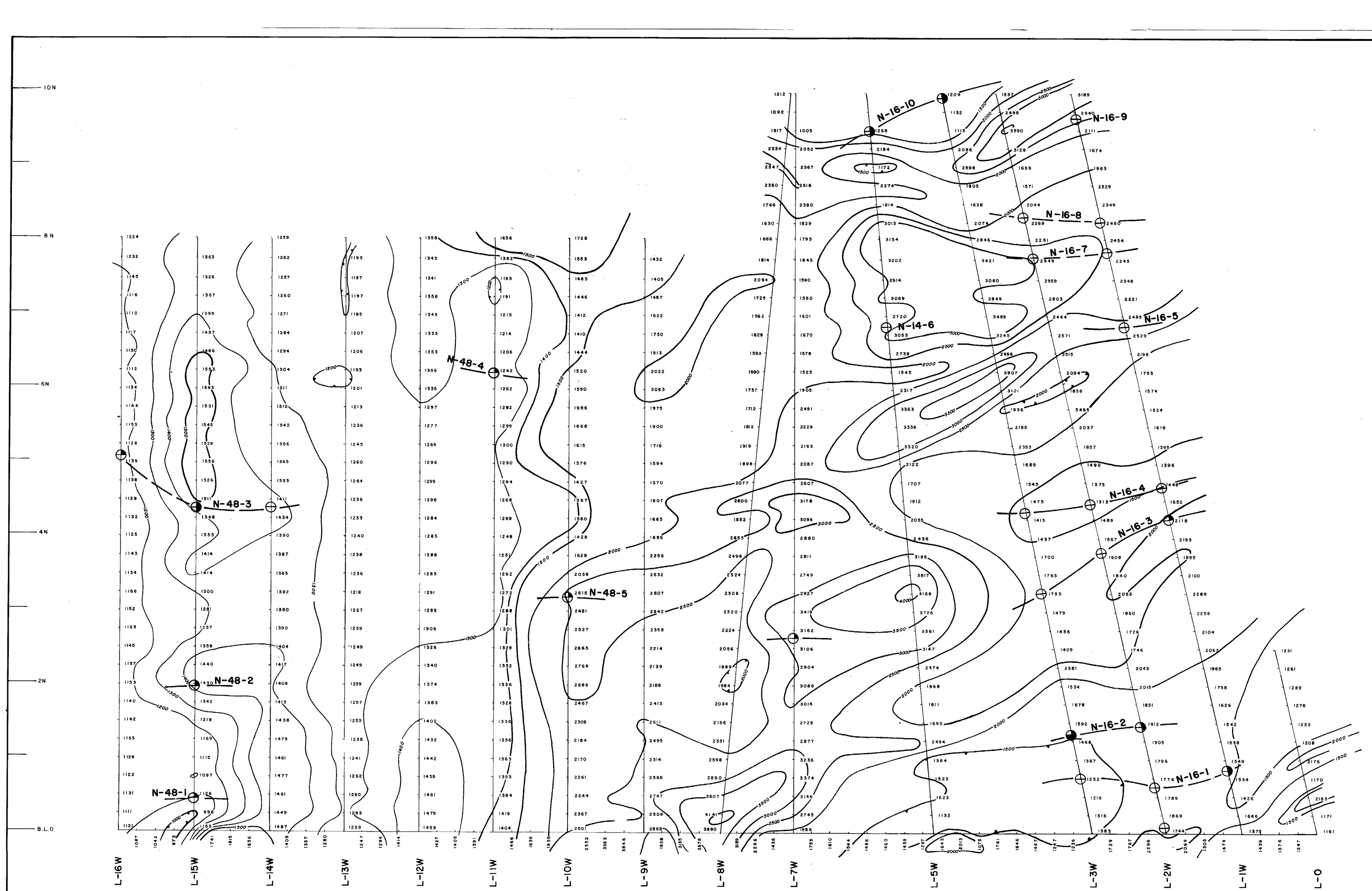
APPROVED BY: D.G. Wahl

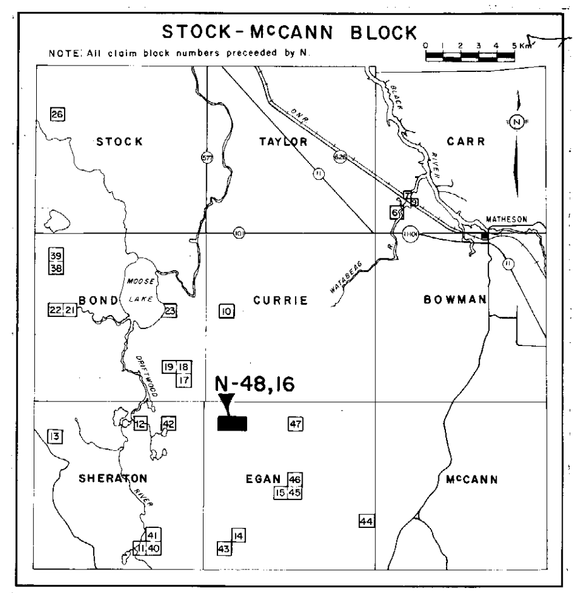
N.T.S.: 42-A/7

DATE: AUG., 1983

DWG. No: 113 B

REGISTERED PROFESSIONAL ENGINEER D.G. WAHL PROVINCE OF ONTARIO





LEGEND

1736 — Total magnetic field intensity above local background of 58,000 nT

1700 — Contour interval 100 nT, 500 nT, 1000 nT

VLF-EM Conductor

SCALE

0 100 200 300

METRES

634226

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

EGAN TWP. GRID N-48,16

PROTON MAGNETOMETER SURVEY

600

DERRY, MICHENER, BOOTH & WAHL

D. G. WAHL — Registered Professional Engineer — Province of Ontario

SURVEY BY:	R. Harwood
DRAWN BY:	L. Collins
APPROVED BY:	D.G. Wahl
N.T.S.:	42-A/7
DATE:	Feb. 1984
DWG. No:	114 A

600

10N

8N

6N

4N

2N

B.L.O

N-48-1

N-48-2

N-48-3

N-48-4

N-48-5

N-48-6

N-14-6

N-16-10

N-16-9

N-16-8

N-16-7

N-16-5

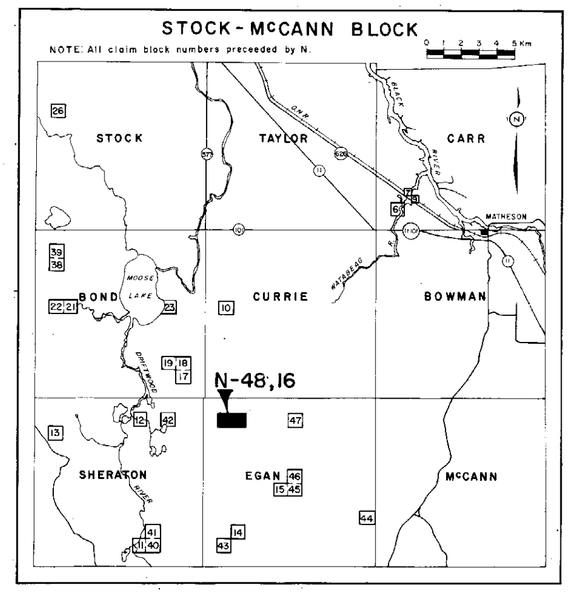
N-16-4

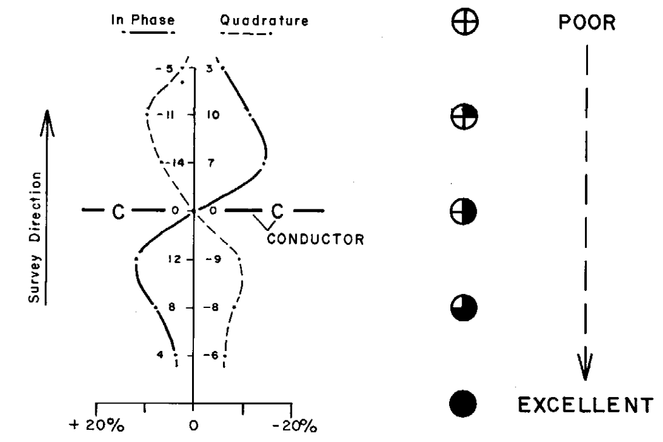
N-16-3

N-16-2

N-16-1

L-16W L-15W L-14W L-13W L-12W L-11W L-10W L-9W L-8W L-7W L-5W L-3W L-2W L-1W L-0





SCALE

0 100 200 300

METRES

SHOGRIN MINERALS INC.

STOCK-McCANN BLOCK

EGAN TWP. GRID N-48,16

VLF-EM 16 SURVEY

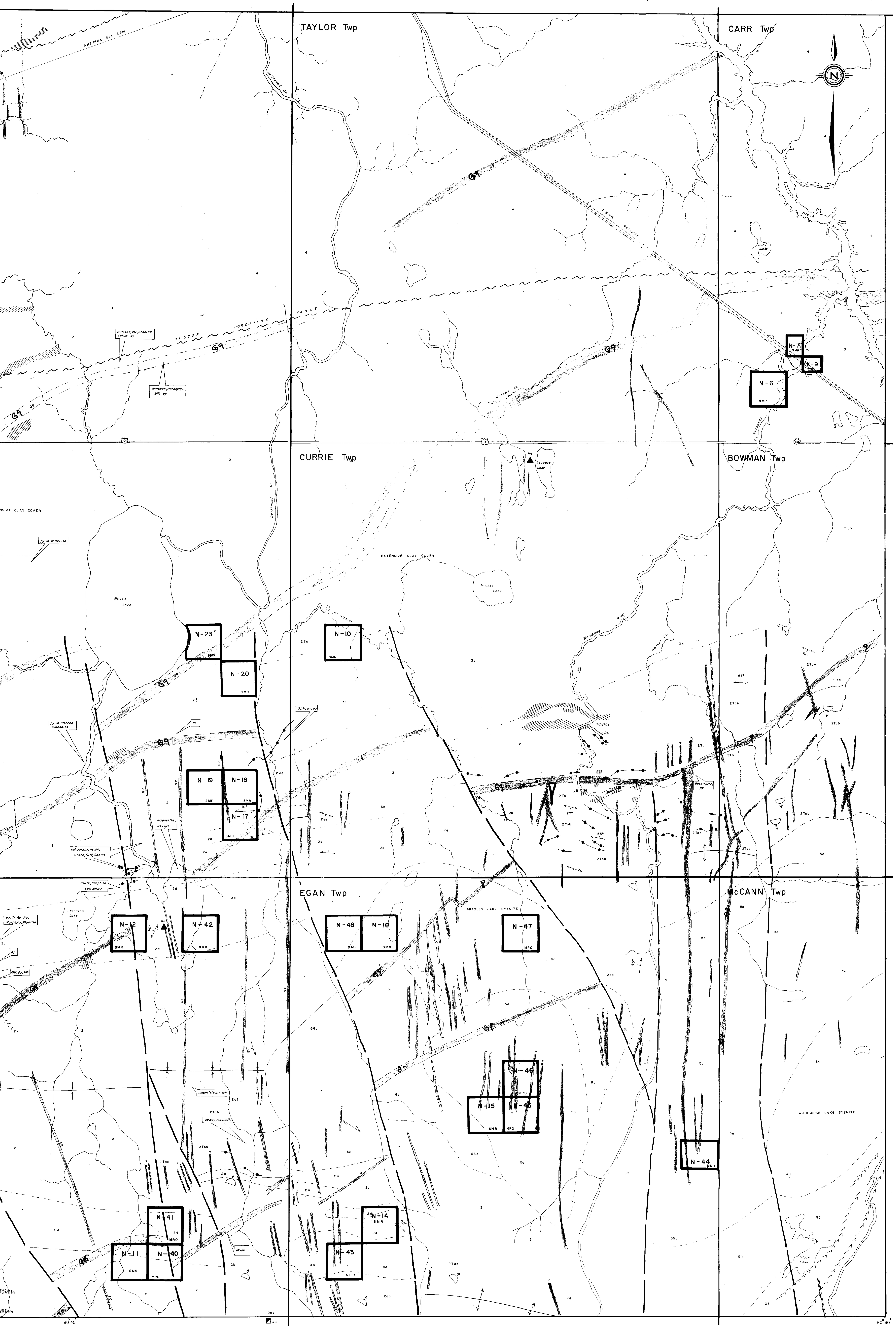
NAA CUTLER, MAINE. 17.8 kHz

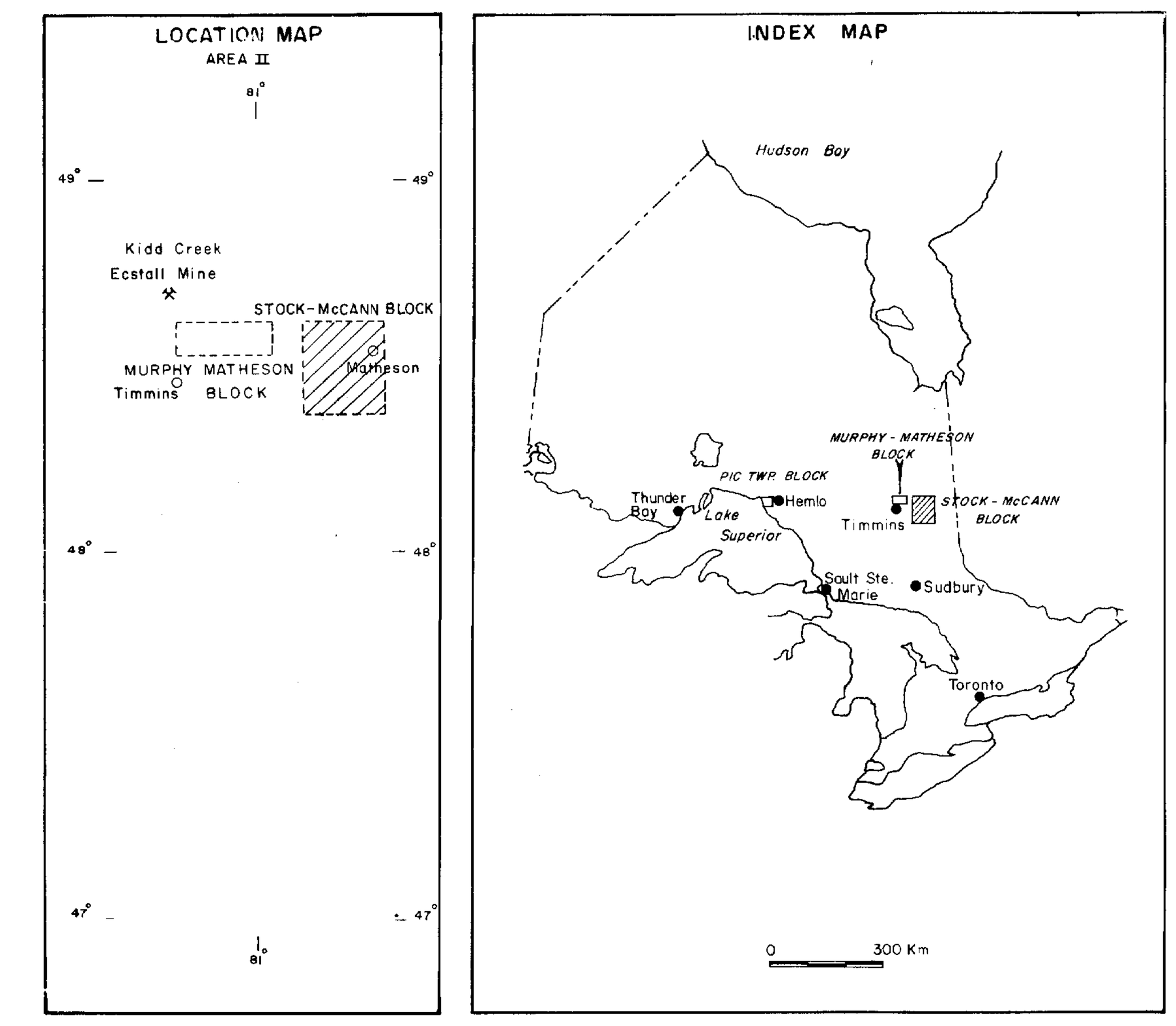
6/0

DERRY, MICHENER, BOOTH & WAHL

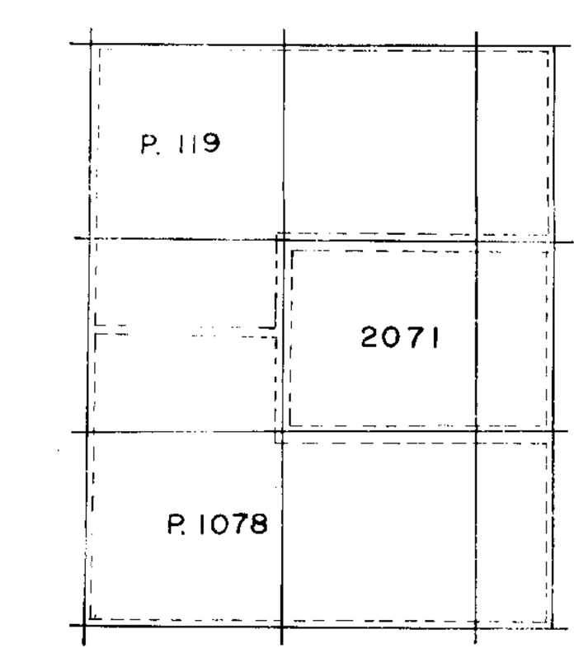
D. G. WAHL — REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF ONTARIO

SURVEY BY:	J. Nikiforuk
DRAWN BY:	L. Collins
APPROVED BY:	D.G. Wahl
N.T.S.:	42-A/7
DATE:	Feb., 1984
DWG. No:	114 B





SOURCES OF INFORMATION



LEGEND

PHANEROZOIC

CENOZOIC

QUATERNARY

PLEISTOCENE

Clay, sand, gravel, swamp and stream deposits

– unconformity –

PRECAMBRIAN

LATE PRECAMBRIAN

9 Olivine Diabase

– intrusive contact –

MIDDLE PRECAMBRIAN

8 Quartz Diabase

– intrusive contact –

EARLY PRECAMBRIAN

7 Diabase

– intrusive contact –

6 FELSIC INTRUSIVE ROCKS
- 6a Monzonite
- 6b Contaminated border zone
- 6c Syenite

5 FELSIC AND OTHER INTRUSIVE ROCKS
- 5 Unsubdivided
- 5a Granodiorite
- 5b Aplite
- 5c Quartz and/or feldspar porphyry
- 5d Ultrabasic Intrusive Rocks

– intrusive contact –

4 METAGREYWACKE AND RELATED ARGILLITIC ROCKS

Greywacke, siltstone, slate, argillite and minor conglomerate

– intrusive contact –

3 INTERMEDIATE TO FELSIC METAVOLCANICS
- 3 Unsubdivided
- 3a Massive
- 3b Tuff, lapilli-tuff
- 3c Breccia

2 MAFIC METAVOLCANICS
- 2 Unsubdivided
- 2a Massive
- 2b Pillowed
- 2c Amygdaloidal
- 2d Tuff, lapilli-tuff
- 2e Breccia
- 2f Amphibolitized
- 2g Chloritic schist
- 2h Abundant epidote bands and lenses
- 2j Variolitic
- 2r Carbonatized
- 2s Sheared
- 2K Komatiitic
- 2T Tholeiitic

1 ULTRAMAFIC METAVOLCANICS
- 1 Unsubdivided
- 1a Massive, polysutured
- 1b Spinifex textured
- 1c Chloritized, schistose
- 1d Talc-tremolite alteration

G Inferred From Geophysics

SYMBOLS

- Esker
- Lava flow, top (arrow) from pillows shape and packing
- Foliation; (dip unknown, inclined, vertical)
- Geological boundary; (approximate, observed)
- Fault
- Trace of axial plane; syncline, anticline
- Shaft
- Mineral Occurrence
- N-27 Freehold area
- Magnetic anomaly High
- Low
- Conductor
- Results of diamond drilling

– –	SRO	Surface Rights Only
—	MRO	Mineral Rights Only
—	SMR	Surface and Mineral Rights

cpy	Chalcopyrite
gn	Galena
po	Pyrrhotite
py	Pyrite
sph	Sphalerite

THE ONTARIO PAPER COMPANY LIMITED

MINERAL RESOURCE EVALUATION

STOCK - Mc CANN BLOCK

(Geology and Previous Work)

REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO

DRAWN BY	JLW
REV.	Feb., 1983
TRACED BY	ML
APPROVED	SFS
N.T.S.	42A/7,8,9,10,11
DWG. NO.	6h

October 1980

1 inch = 1/2 mile

250