



42A12NE0599 10 LOVELAND

010

Diamond Drilling

Township of LOVELAND

Report No: 10

Work performed by: TILMAC GROUP

Claim No	Hole No	Footage	Date	Note
P 41618	A-1	165'	Feb/57	
	A-2	230'	Feb/57	
	A-3	202'	Feb/57	
	A-4	305'	Feb/57	
	A-5	443'	Mar/57	
	A-6	400'	Mar/57	
	A-7	439	Mar/57	
P 41624	A-8	648'	Apr/57	
	A-9	528'	Apr/57	
		<u>3360'</u>		

Notes: for further info. see DHR 18
(Loveland Tp.)

D. D. HOLE No. A-1

LOCATION 140' E of Base Line on
Cross Line O-N (Claim 41618)
 HOLE STARTED 10th February, 1957
 HOLE COMPLETED 12th February, 1957
 CORE RECOVERY _____ %
 DRILLED BY Heath and Sherwood

SURVEY		
Depth	Dip	Azimuth

COLLAR: LAT. _____
 DEP. _____
 ELEV. _____
 AZIMUTH 238° 30'
 DIP. -50°
 LENGTH 165.0'
 HOR. PROJ. _____ VERT. PROJ. _____

FOOTAGE		DESCRIPTION	SAMPLING				% Ni	% Cu	% S
FROM	TO		SPL. NO.	FROM	TO	FEET			
0	4.0	CASSING							
4.0	10.0	GABBRO - medium grain, dark coloured							
10.0		QUARTZ GABBRO							
		- 20.5', light coloured quartz gabbro - minor specks and blebs pyrrhotite.							
		- 42.5', fine-grained phase (contact 10° to core axis) very little mineral.	S6	43	47	4.0	0.099	0.18	
		- 54', finer-grained, grey green; spots of white feldspar. About 2% disseminated pyrrhotite and chalco.							
		At 48-49' well mineralised massive patch of sulphides.							
		- 49-54, about 6% sulphides.							
54	72.6	ALTERED GABBRO							
		Grey green colour, mafic minerals indistinct in outline, prob. altered. 72-72.6, ground core.	S3	54	59	5.0	0.03	0.07	

FOOTAGE		DESCRIPTION	SAMPLING				% Ni	% Cu	% S
FROM	TO		SPL. NO.	FROM	TO	FEET			
72.6	77.0	<p>APLITIC (?) ZONE</p> <p>Lighter coloured, fine-grained rock, disseminated sulphides partly oxidized. Chalco and pyrrhotite also follow a $\frac{1}{2}$" mafic band 60° to core axis.</p> <p>74-77, better mineralized, grey-green altered zone, weak serpentine slips.</p>	S4	59	64	5.0	0.008	0.03	
			S5	64	69	5.0	0.036	0.05	
			S2	90	95	5.0	0.117	0.15	
77.0	94.0	<p>COARSE GABBRO</p> <p>Sharp contact with preceding type, at small angle to core axis. Pyrrhotite mineralization coarser than previously - minor chalcopyrite.</p>	S1	95	100.5	5.5	0.069	0.20	
94.0	100.5	<p>GABBRO ?</p> <p>Fine-grained phase (?) near diabase contact. Contact at 100.5' is at low angle to core.</p>							
100.5	165.0	<p>DIABASE</p> <p>Chilled at contact, rapidly becoming coarse massive, with visible blue-black magnetic grains. Becomes darker in colour from a mottled grey-white colour. Very little quartz.</p> <p>END OF HOLE = 165 ft.</p> <p>Logged by C. D. McKenzie (vetted APB) <i>CDM</i></p>							

D. D. HOLE No. A-2

LOCATION Line O-N, 160 ft. east of base line

Claim 41618

HOLE STARTED 13th February, 1957

HOLE COMPLETED 15th February, 1957

CORE RECOVERY%

DRILLED BY Heath and Sherwood

Acid Test		SURVEY
Depth	Dip	Azimuth
200'	-65°	

COLLAR: LAT.

DEP.

ELEV.

AZIMUTH 148° 30'

DIP -60°

LENGTH 230 ft. A core.

HOR. PROJ. VERT. PROJ.

FOOTAGE		DESCRIPTION	SAMPLING				% Ni	% Cu			
FROM	TO		SPL. NO.	FROM	TO	FEET					
0	5	CASING									
5.0	18.5	QUARTZ GABBRO Grey green quartz gabbro, medium grain, speckled appearance.									
18.5	66.2	GABBRO More mafic than previous section. Some chlorite epidote alteration. 29.5-59.0 is possibly pyroxenite - very little mineral. 59-66, increasing feldspar and some quartz.									
66.2	114.3	QUARTZ GABBRO Mottled appearance, feldspar and quartz. Spots of pyrrhotite and chalco appear to replace mafic minerals. 102-112, 5% sulphides. Somewhat sheared. 114-114.3, two quartz stringers normal to core. Chalco spots in quartz and with chlorite.	C8	102.5	103.5	1.0	0.14	0.12			

FOURAGE		DESCRIPTION	SAMPLING				% Ni	% Cu			
FROM	TO		SPL. NO.	FROM	TO	FEET					
114.3	163.7	<p>ALTERATION ZONE</p> <p>Contains fine-grained feldspar, giving speckled appearance to core. Rock is somewhat serpentinized with a few 1/8"-1/4" seams of fibre at 130°.</p> <p>5% sulphides, with some chalco on fracturing.</p> <p>137.5-150.0 is very dark mafic section shearing 60-70° to core. Serpentine on slips.</p> <p>150-163.7, similar but with feldspar lathes.</p>	S11	120.5	125.5	5.0	0.069	0.02			
163.7	190.0	<p>GABBRO</p> <p>Becomes fine-grained, shearing 61° to core axis. 164", quartz feldspar stringers 80° to core.</p> <p>170-173, section is 30-35% sulphides, with weak banding at large angle to core.</p> <p>175-180, finer grained and probably chilled edge of gabbro. No sharp contact.</p>	S10	170	173	3.0	1.32	0.40			
190	230	<p>GREENSTONE</p> <p>Amygdalar fine grained greenstone, less sheared than at 170°.</p> <p>END OF HOLE = 230 ft.</p>									

Logged by G. D. McKennie (Vetted AFB)

AMB

D. D. HOLE No. A-3

LOCATION Line 1 N, 140° E of Base Line

Claim 41618

HOLE STARTED 16th February, 1957

HOLE COMPLETED 19th February, 1957

CORE RECOVERY _____ %

DRILLED BY Heath and Sherwood

SURVEY		
Depth	Dip	Azimuth

COLLAR: LAT. _____

DEP. _____

ELEV. _____

AZIMUTH 250°

DIP. -50°

LENGTH 202 ft. A core.

HOR. PROJ. _____ VERT. PROJ. _____

FOOTAGE		DESCRIPTION	SAMPLING			
FROM	TO		SPL NO.	FROM	TO	FEET
0	5	CASING				
5.0	35.4	<p>QUARTZ GABBRO</p> <p>Medium-grained type. At 21.4 fine-grained inclusion or dyke at small angle to core axis.</p> <p>24-33.4, finer grained type - speckled texture.</p> <p>33.4-35.4, greenstone inclusion contacts at small angle to core.</p>				
35.4	42.0	COARSE QUARTZ GABBRO				
42.0	119.0	<p>GABBRO</p> <p>42-46, dark mafic band, sparse disseminated pyrrhotite.</p> <p>46-59, coarser and more feldspathic phase, patchy coarse pyrrhotite.</p> <p>59-69.3 more mafic and finer-grained - large altered patches some replaced by coarse pyrrhotite, minor chalcopyrite.</p>				

FOOTAGE		DESCRIPTION	SAMPLING								
FROM	TO		SPL. NO.	FROM	TO	FEET					
187	202	<p>178-182 Greenstone inclusion, fine banding normal to core.</p> <p>DIABASE</p> <p>Appears to be diabase - very dark coloured, massive, with coarse feldspars and visible magnetite.</p> <p>END OF HOLE = 202 ft.</p> <p>Logged by C. D. McKemie (Vetted AFB)</p>									

AFB

D. D. HOLE No. A-4

LOCATION Line 2 N, 270' E of Base Line

Claim L1618

HOLE STARTED 21st February, 1957

HOLE COMPLETED 28th February, 1957

CORE RECOVERY _____ %

DRILLED BY Heath and Sherwood

SURVEY		
Depth	Dip	Azimuth

COLLAR: LAT. _____

DEP. _____

ELEV. _____

AZIMUTH 250°

DIP. -43°

LENGTH 305 ft. **A core.**

HOR. PROJ. _____ VERT. PROJ. _____

FOOTAGE		DESCRIPTION	SAMPLING			
FROM	TO		SPL. NO.	FROM	TO	FEET
0	2	CASING				
2	113	<p>QUARTZ GABRO</p> <p>Light coloured massive type with small greenstone inclusions.</p> <p>4-10, quartzose phase.</p> <p>20.8-24.0, fine, altered inclusion.</p> <p>34.7 fine grained phase, chloritic slips. Several inclusions, contacts 40° to core axis.</p> <p>40-58, grey green, medium-grained, type.</p> <p>58-70, increased proportion of quartz with spots up to 1/2" long. Coarse-grained, not mineralized.</p> <p>70-82, finer grained slightly altered (chloritic?)</p> <p>82-92.4, very fine-grained, probable greenstone inclusion.</p>				

POSTAGE		DESCRIPTION	SAMPLING				% Ni	% Cu			
FROM	TO		SPL. NO.	FROM	TO	FEET					
113	158	<p>ALTERED ZONE</p> <p>To 140', weakly chloritized. Disseminated sulphides, including fine-grained chalcopyrite, occasional large blebs pyrrhotite.</p> <p>140-148, sheared, apparently at 75° to core and nearly parallel to core. Chalco on some slip planes. Probably 3% sulphides.</p> <p>148-156.6 Finer-grained, still sheared and altered. Spotty mineralization.</p> <p>156.6-158 Very fine grained, slight mineral.</p>	C6	142.8	143.8	1.0	0.17	0.32			
			C10	153	163	10.0	0.29	0.47			
158	177	<p>GABBRO</p> <p>Slightly mineralized spotty, dark gabbro.</p>									
177	180	<p>ALTERED ZONE</p> <p>Sheared and partly serpentinized - greenstone or fine gabbro?</p> <p>178.9, 1/2" pyrrhotite.</p>									
180	181	<p>GABBRO</p> <p>Serpentinous patches and spotty mineralization present.</p>									
181	235.7	<p>ALTERED ZONE</p> <p>Chloritic altered gabbro, serpentine along slips. Slightly mineralized.</p> <p>220.6, 1" zone of breccia of altered mafic rock partly replaced (?) by chalco and pyrrhotite.</p>	C7	216.3	217.0	0.7	0.665	0.25			

POSTAGE		DESCRIPTION	SAMPLING								
FROM	TO		SPL NO.	FROM	TO	FEET					
235.7	242	<p>GABBRO</p> <p>Patches of feldspar and coarse mafic mineral.</p> <p>235.7-237 Sharp fine-grained dykelet 15° to core axis.</p> <p>Small greenstone inclusions.</p> <p>241.5, ground core.</p>									
242	305	<p>DIABASE</p> <p>Black, massive and fresh looking, some visible magnetite.</p> <p>END OF HOLE = 305 ft.</p>									

Logged by: C. D. McKenzie (vetted by APB) *APB*

FOOTAGE		DESCRIPTION	SAMPLING				% Ni	% Cu	% S
FROM	TO		SPL. NO.	FROM	TO	FEET			
245	294	GABBRO Gabbro has spotty mineralization. Calcite stringers at 270-275. 275-294 is slightly altered, darker gabbro.							
294	352	MINERALIZED SECTION, ALTERATION Strongly mineralized about 30% sulphides with possibly 1% copper. Chiefly pyrrhotite. 296-299.5, serpentized gabbro, spots of chalco and pyrrhotite - includes 1/2" vein solid pyrrhotite. 299.5-304, well mineralized, about 30% sulphides. Fracturing parallel core axis, some fibrous serpentine. 304-316, well-disseminated pyrrhotite and chalcopyrite throughout. Some chalco on slip surfaces. 316-348, slightly serpentized slight mineralization. Carbonate on slips. 348-351, ground core.	D-1B	294	296	2.0	0.49	0.43	3.19
			D1	296	300	4.0	0.13	0.20	
			S-2B	300	304	4.0	0.62	0.63	4.32
			D2	304	306	2.0	0.10	0.27	
			M8	306	316	10.0	0.47	0.63	
352	427	GREENSTONE At 352-354 strong sulphide mineralization with nearly massive sections, pyrrhotite. Some quartz and calcite. 355-356, gabbro section, contact 70° to core axis. 356-425, massive greenstone. At 366 small pyrrhotite seen. 425-427, green serpentized section.	M7	352	354	2.0	1.12	0.50	

D. D. HOLE No. A-6

LOCATION Line O-N, at 380 ft. east of base line

Claim 41618

HOLE STARTED 12th March, 1957

HOLE COMPLETED 19th March, 1957

CORE RECOVERY _____ %

DRILLED BY Heath and Sherwood

SURVEY		
Depth	Dip	Azimuth

COLLAR: LAT. _____

DEP. _____

ELEV. _____

AZIMUTH 160°

DIP. -50°

LENGTH 400 ft. A core.

HOR. PROJ. _____ VERT. PROJ. _____

FOOTAGE		DESCRIPTION	SAMPLING			
FROM	TO		SPL. NO.	FROM	TO	FEET
0	3	CASING				
3	58.5	QUARTZ GABBRO 15-21, patchy texture, more feldspar than above. 20.9, two narrow veins pyrrhotite normal to core. 33-40, greenstone inclusion. 42-43, mineralised - 3/4" band massive pyrrhotite 50° to core axis. 50-58.5, rusty greenstone inclusion.				
58.5	163	GABBRO 62.6-70, greenstone inclusion. 70-74, fine-grained - chilled (?) - possible edge of coarse gabbro, normal to core. 74-93, quartz gabbro (?) 93-104, massive gabbro. 104-107, quartz gabbro.				

LOG RANGE		DESCRIPTION	SAMPLING				% Ni	% Cu			
FROM	TO		SPL. NO.	FROM	TO	FEET					
		107-127, greenstone inclusion.									
		113.4, streak of chalcopyrite and spots of pyrrhotite.									
		127-153, quartz gabbro.									
		154-157, greenstone inclusion.									
		158-163, greenstone inclusion.									
163	266	ALTERED, MINERALIZED ZONE									
		163-202, gabbro; fibrous serpentine - no mineralization.									
		202-217, spots of pyrrhotite and chalcopyrite.									
		217-223, 30% sulphides in gabbro.									
		223-248, 5-6% sulphides in gabbro.	K7	232	237	5.0	0.06	0.23			
		248-250, serpentinized inclusion (?) + quartz seam.	K8	237	248	11.0	0.10	0.27			
		252-266, slightly sheared gabbro, minor mineralization.									
266	290	GABBRO									
		266-276, mafic, dark gabbro, slight mineral.									
		288.3-289.8, two 4" bands nearly massive pyrrhotite (5" apart). Minor disseminated chalcopyrite.	L5	288.3	289.8	1.5	1.54	0.70			
290	400	GREENSTONE									
		Unmineralized massive andesite. Small feldspar laths.									
		END OF HOLE = 400 feet.									

Logged by: C. D. McKensie
(Vetted by APB)

AMB

D. D. HOLE No. A-7

LOCATION 70 feet south of station 350 ft.
east of base line on Line 4N, Claim 41618

HOLE STARTED 23rd March, 1957

HOLE COMPLETED 2nd April, 1957

CORE RECOVERY _____ %

DRILLED BY Heath and Sherwood

SURVEY		
Depth	Dip	Azimuth

COLLAR: LAT. _____

DEP. _____

ELEV. _____

AZIMUTH 340°

DIP. -74°

LENGTH 339 feet A core.

HOR. PROJ. _____ VERT. PROJ. _____

FOOTAGE		DESCRIPTION	SAMPLING			
FROM	TO		SPL. NO.	FROM	TO	FEET
0	10	CASING				
10	53	GREENSTONE				
		10-31, fine-grained altered rock (carbonate, epidote) stringers of calcite.				
		31-34, fragmental zone (possible brecciation).				
		34-53, banded 60° to core axis, carbonate and epidote seams at 52.6.				
53	237	GABBRO				
		53-55, serpentinous chloritic gabbro. Some carbonate near contact.				
		55-91, spotty textured.				
		91-122.5, massive dark gabbro, calcite seams. No mineral.				
		122.5-150, patchy gabbro.				
		150-171, dark mafic gabbro.				
		171-174, few spots of pyrrhotite in gabbro.				

FOOTAGE		DESCRIPTION	SAMPLING				Ni	Cu			
FROM	TO		SPL. NO.	FROM	TO	FEET					
		174-191, increasingly feldspathic gabbro. Few coarse blebs pyrrhotite.									
		207-237, gabbro with spotty mineralization.									
237	270	ALTERED, MINERALIZED ZONE									
		237-250, somewhat serpentized, scant mineral.									
		250-270, disseminated pyrrhotite and chalco in gabbro.	R1	250	260	10.0	1.114	0.50			
			R2	260	270	10.0	0.207	0.25			
270	310	GABBRO	R3	270	280	10.0	0.223	0.35			
		270-310, mafic gabbro, scant fine-grained sulphides.									
310	335	ALTERED ZONE									
		Increased chloritization and serpentinous slips.									
335	369	GABBRO									
		To 360, finer-grained, less altered gabbro.									
		360-369, very massive gabbro, slight mineral.									
369	397	MINERALIZED ZONE									
		370-376, serpentine and chalcopryrite along fractures.									
		385-397, massive and disseminated pyrrhotite and chalco along fractures and shears, very fine-grained mineral.	R4	385	397	12.0	0.858	0.75			

D. D. HOLE No. A-8

LOCATION Line 3N, at 580 feet east of
base line Claim 41624 (41630, 41617)

HOLE STARTED 3rd April, 1957

HOLE COMPLETED 10th April, 1957

CORE RECOVERY _____ %

DRILLED BY Heath and Sherwood

SURVEY		
Depth	Dip	Azimuth

COLLAR: LAT. _____

DEP. _____

ELEV. _____

AZIMUTH 340°

DIP. -50

LENGTH 648 feet (0-508 = A core.)
(508-648 = B core.)

HOR. PROJ. _____ VERT. PROJ. _____

FOOTAGE		DESCRIPTION	SAMPLING			
FROM	TO		SPL. NO.	FROM	TO	FEET
0	10	CASING				
10	25	QUARTZ GABBRO 15-25.3, greenstone inclusion, contact 75° to core axis.				
25	101	GABBRO 30.5-31.0, carbonate pyrrhotite and chalc in breccia. 73-73.9, greenstone inclusion.				
101	135	QUARTZ GABBRO 132-135, sheared and chloritic.				
135	300	GABBRO 186-187, greenstone, banding 20° to core axis. 267-277, greenstone. 292-296, massive gabbro.				
300	372	GREENSTONE 300-302, mineralized greenstone - calcite veins with magnetite and				

FOOTAGE		DESCRIPTION	SAMPLING				% Ni	% Cu	% Zn
FROM	TO		SPL. NO.	FROM	TO	FEET			
		pyrrhotite in carbonatized greenstone. 302-372, chiefly massive greenstone, with short sections of gabbro. Contact at 372 nearly normal to core (i.e. chilled edge).	21	300	302	2.0	TR	ND	3.17
372	494	QUARTZ GABBRO							
494	550	GABBRO 494-499, altered gabbro, minor sulphide mineralisation. 499-508, very little mineral in chloritic, altered gabbro. 508-550, medium grained gabbro, occasional spot of pyrrhotite.	22	494	499	5.0	0.205	0.12	
550	593	ALTERED ZONE Becomes sheared, with fibrous serpentine pyrrhotite and chalco along fractures. From 582-593 increased mineralization towards contact.	Q1 J1	585.5 590.5	590.5 595.5	5.0 5.0	0.107 0.406	0.15 0.13	
593	648	GREENSTONE Greenstone banded about 50° to core axis. Disseminated pyrrhotite, with 6" heavier sulphide at 594". 608-648, massive not mineralized. END OF HOLE = 648 feet.							

Logged by: C. D. McKinnis
(Vetted by AFB)



PROJECT

TILMAC GROUP, LOVELAND TOWNSHIP, ONTARIO

1

*File
P-41617*

D. D. HOLE No. A-9

LOCATION Line 1N, at 630 feet east of base line.

Claim 41624 (41618)

HOLE STARTED 21st April, 1957

HOLE COMPLETED 3rd May, 1957

CORE RECOVERY _____ %

DRILLED BY Feath and Sherwood

SURVEY		
Depth	Dip	Azimuth

COLLAR: LAT. _____

DEP. _____

ELEV. _____

AZIMUTH 250°

DIP -14°

LENGTH 528 feet (0-395 - A Core; 395-528 - B Core)

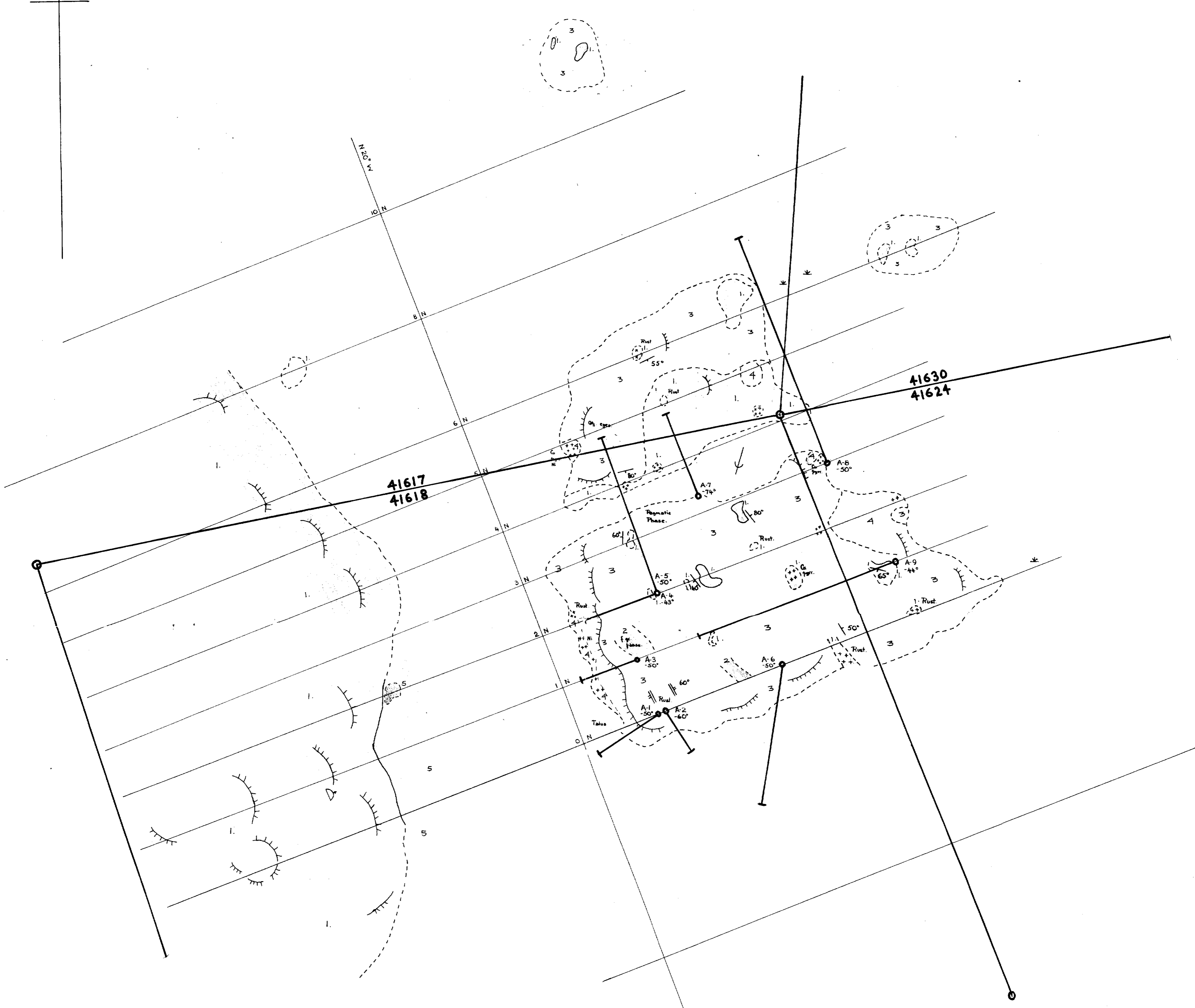
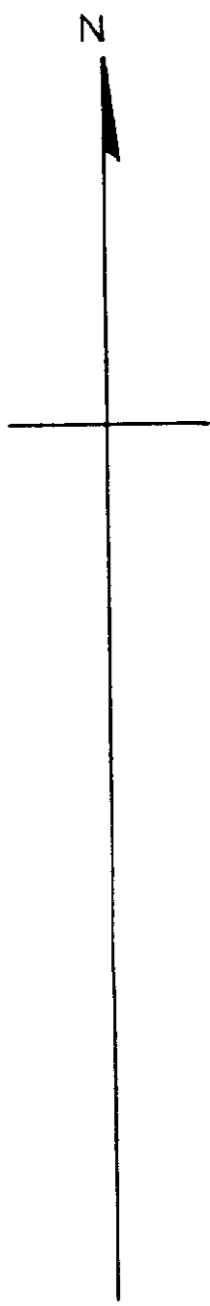
HOR. PROJ. _____ VERT. PROJ. _____

FOOTAGE		DESCRIPTION	SAMPLING			
FROM	TO		SPL. NO.	FROM	TO	FEET
0	4	CASING				
4	153	QUARTZ GABBRO 21-28, greenstone inclusion. 49-56, altered inclusion shadowey contacts. 103-153, light coloured, quartz gabbro.				
153	269	GABBRO 204-214, greenstone inclusion. 215-216, pyrrhotite and chalcopyrite disseminated in gabbro. 226-234, greenstone inclusion. 234-239, slightly mineralized gabbro. 239-249, greenstone and gabbro patches. 254-269, inclusions of greenstone, shadowey contacts.				

FOOTAGE		DESCRIPTION	SAMPLING				% Ni	% Cu			
FROM	TO		SPL. NO.	FROM	TO	FEET					
269		<p>QUARTZ GABBRO</p> <p>280.5, calcite seam parallel to core - a little galena.</p>									
287		<p>ALTERED ZONE</p> <p>Gabbro showing some carbonate and serpentine.</p> <p>300-322, greenstone (inclusion?)</p> <p>322-343, slightly sheared gabbro.</p> <p>343-395, slightly mineralized gabbro (pyrrhotite and chalco, disseminated).</p> <p>385-395, calcite stringers in chloritic zone. Specks of ZnS in calcite.</p> <p>(This section 9384-395) produced caving or cavity during drilling.)</p> <p>395-430, gabbro with development of fibrous hornblende and finer grained mineralization (pyrrhotite and chalcopyrite). At lower end of section vein greenstone, quartz carbonate seams carry sulphides, including pyrite.</p>	P1 X1 X2	422 427 432	427 432 437	5.0 5.0 5.0	0.036 0.377 0.604	0.10 0.20 0.12			
438	516	<p>GREENSTONE</p> <p>Light coloured greenstone. Local calcite seams and quartz.</p>									
516	528	<p>DIABASE</p> <p>Chilled border /Fine-grained black rock, actual contact is ground. No mineralization in this section.</p> <p>END OF HOLE = 528 feet.</p>									

Logged by: C. D. McKennis
(Vetted by AFB)

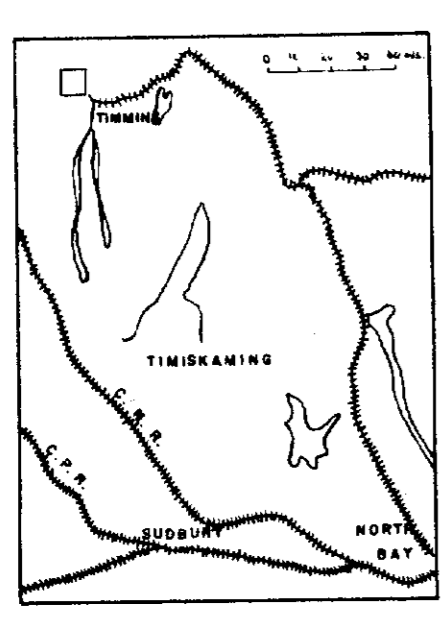




41630
41624

41617
41618

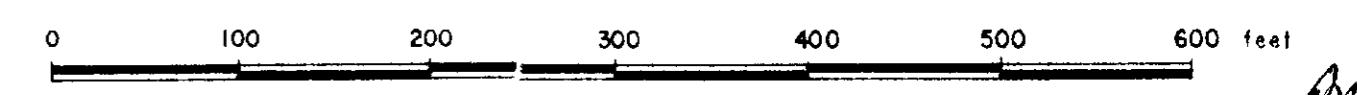
INDEX MAP



GEOLOGY
PART OF TILMAC GROUP, LOVELAND TWP., ONT.
LEGEND

5	DIABASE		
4	GABBRO		
3	QUARTZ GABBRO		Pre-Cambrian
2	FINE GRAINED GABBRO		
1	GREENSTONE		
	SWAMP		STRIKE & DIP
	LINES		JOINTING
	HIGH POINT OF OUTCROP		INCLUSIONS
	CONTACT OBSERVED		MINERALIZATION
	GEOLOGICAL BOUNDARY		CHALCOPYRITE
	OUTLINE OF OUTLINE		PYRRHOTITE
	PILLOW DETERMINATION		NICKEL
	GLACIAL STRIAE		D.D. HOLE

Scale: 1" = 100'



AMB
11/24/77

ll

