



31M04NE0039 22 SOUTH LORRAIN

010

Diamond Drilling

Township of So. Lorrain

Report No: 22

Work performed by: W. Hammerstrom

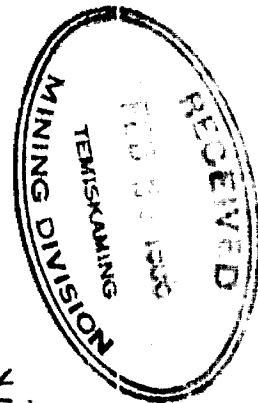
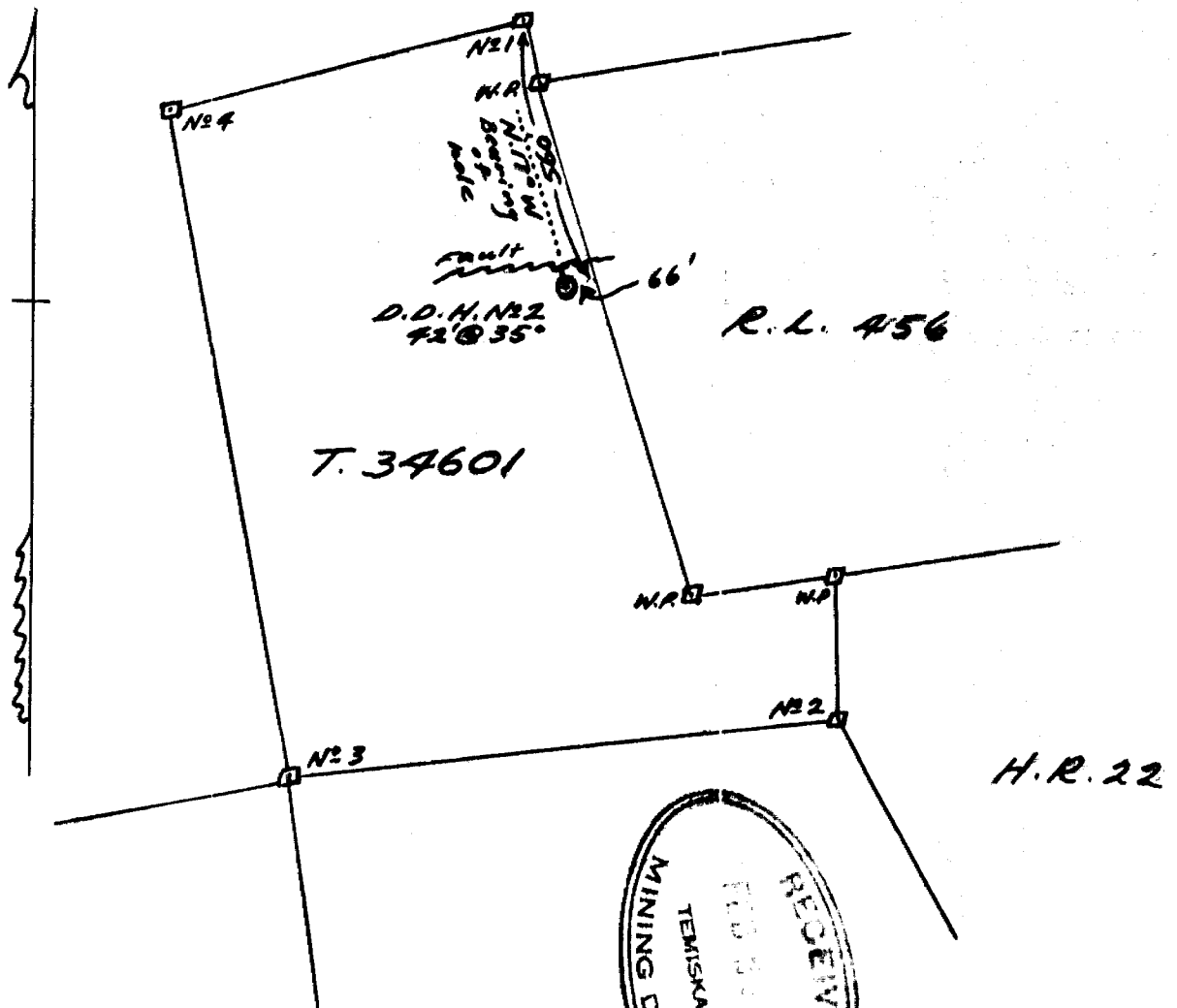
Claim No	Hole No	Footage	Date	Note
T 34601	2		Feb/56	
	3-A		Mar/59	
T 40521	3		Aug/57	
	1-A		Jan/59	
	2-A		Feb/59	
	4-A		Apr.59	

Notes:

SKETCH TO SHOW LOCATION
of
D.D.H. No 2
on
CLAIM T. 34601

SOUTH LORRAIN TWP. ONTARIO

N. AST.



SCALE: 1 inch = 400 feet.

H. Hammerstone
 Feb 20th 1956

W. HAMMERSTROM
 COMPANY: CLAIM NO T. 34601
 SOUTH LORRAIN TWP. ONT.

DIAMOND DRILL LOG

12-2-333

SHEET NO. 1

HOLE NO. 2

Started February 20th 1956		Bearing N. 17° W		Dip @ collar, -35°	Latitude			Level Surface					
Completed February 21st 1956		Length 42.0'			Departure			Place 560' south of post N21 along east boundary then S. 73° W, 66' to cellar					
Purpose To test east-west fault					Elevation			Distance of Station					
Logged by H. Hammerstrom		CORE							Size of Core: 7/8" diameter.				
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values		
0' - 20.0'	<u>Keewatin - Pillow Lava</u> :- Locally some epidotization. Fine grained dark grey rock with locally lighter grey irregular patches showing some epidotization and carbonatization. Rock fairly hard. Numerous slips and fractures at various angles to core, some with rust. Locally a little pyrite. A few narrow quartz-calcite threads at various angles to core <u>Note @ (19.8', 2" section showing considerable pyrite and pitting)</u>												
20.0' - 26.5'	<u>Lamprophyre</u> : Fine to medium grain. Medium grey color. Several slips and fractures showing rust.												
26.5' - 41.5'	<u>Keewatin - Pillow Lava</u> :- As at beginning of hole. Numerous slips and fractures at various angles to core some showing rust. Rock in places contains considerable pyrite. Few narrow scattered quartz-calcite threads. <u>Note @ (28.2' - 28.3', veinlike section with 80% magnetite some pyrite + carbonate), (29.0' - 29.1', similar to 28.2' - 28.3') (28.8' - 29.0', numerous grains of pyrite) (41.5' - 42" pink quartz-calcite)</u>												
41.5' - 42.0'	<u>Lamprophyre</u> : Similar to 20.0' - 26.5'												
			42.0'										



N.M.P.

42.0' End of hole

Work performed - 80 days

74 feet diamond drilling ($7/8$ " core)

6 days work on test pit

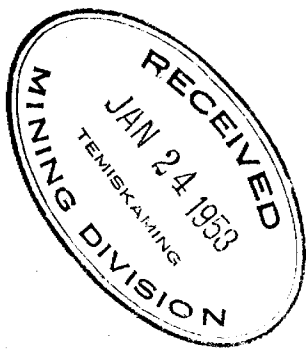
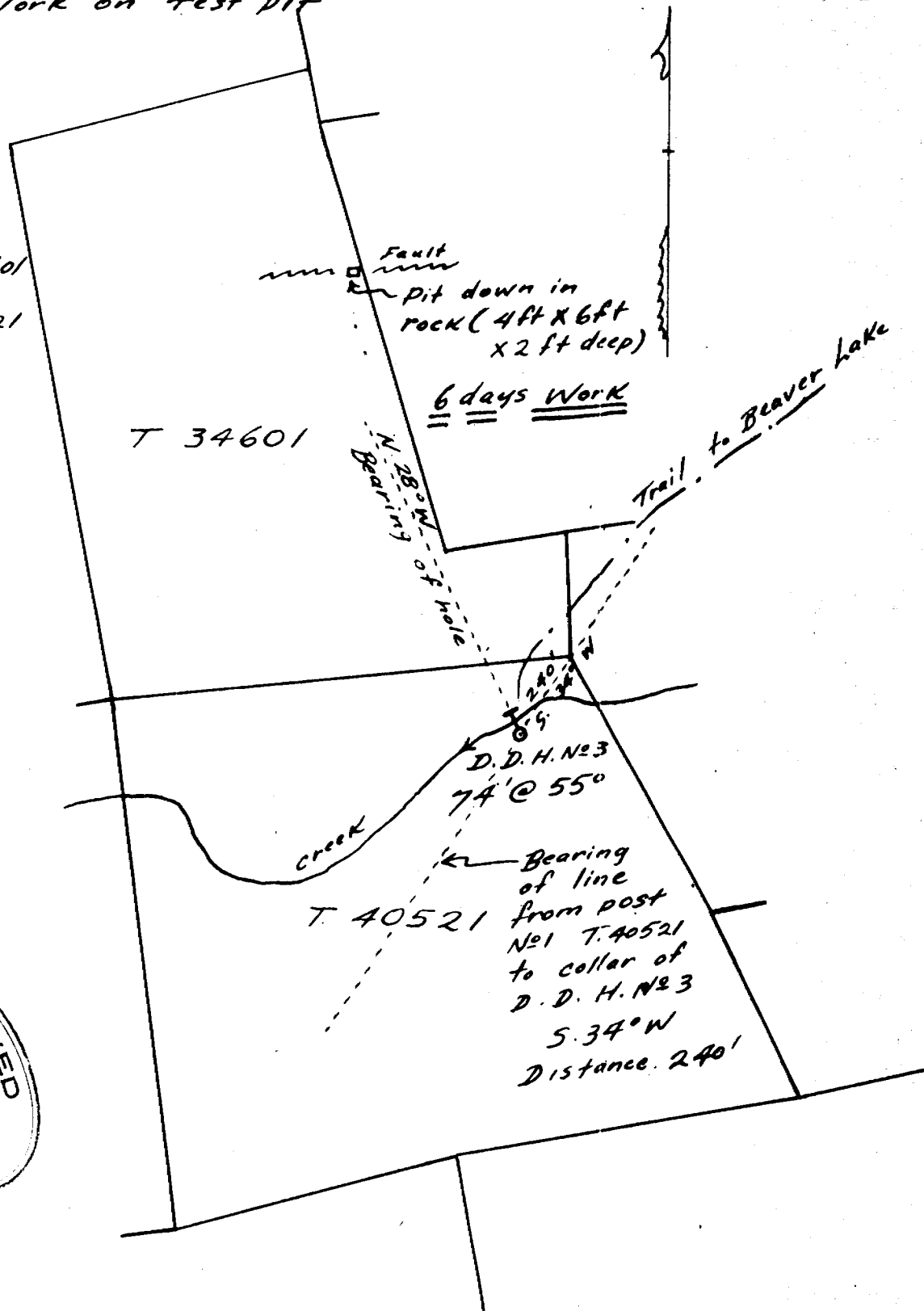
80 days

Distribution

40 days to T 34601

40 days to T 40521

N. AST.



SKETCH TO SHOW LOCATION OF
D. D. HOLE N°3 AND TEST PIT
CLAIMS T 34601 & T 40521
SOUTH LORRAIN TWP - ONTARIO

SCALE 1 INCH = 400 FEET

H. Hamnerstrom
Jan 20/53

COMPANY:

W. Hammerstrom Claims
South Lorrain Twp

CAN NOT BE LOCATED

DIAMOND DRILL LOG

Size of Core
7/8"

SHEET NO. 1

HOLE NO. 3

Start Aug 9th 1957	Bearing N28°W. (Ast)	Dip @ Collar, -55°	Latitude	Level Surface
Completed Aug 14th 1957	Length 74.0'		Departure	Place Claim T. 40 S 21. South Lorrain Twp. 240', S. 34° W of Post No 1
Purpose			Elevation	Distance of Station

Footage	DESCRIPTION	Sample No.	CORE				Sample No.	Footage	Width	Assay Ounces	Average Values
			Footage	Width	Assay Ounces	Average Values					
0' - 3.0'	Basic Volcanic Flow Rock: Keewatin Basalt: - Fine grained irregular dark to lighter greenish grey color. Very hard rock. Fractures and slips @ various angles to core. Some showing a little rust and some a thin coating of calcite.										
3.0'	Sharp Contact (Irregular @ high angle)										
3.0' - 33.5'	Amygdaloidal Basalt. Medium grain Dark greenish grey faintly mottled effect. Hard massive rock. A few scattered quartz-calcite filled amygdalites Some epidote alteration. A few carbonate-epidote stringers and threads. Locally a little pyrite										
33.5' - 46.6'	Altered Amygdaloidal Basalt (as above but more altered) 15-20% irregular streaks and patches of epidote and carbonate alteration. Rock more fractured with locally rust along slips and fractures. A few irregular stringers and patches of quartz-calcite										

8

N.M.P.

COMPANY:

W. Hammerstrom claims
South Lorrain Twp.

DIAMOND DRILL LOG

SHEET NO. 2

HOLE NO. 3

Shot	Bearing	Dip	Latitude		Level						
			Departure	Elevation	Place	Distance of Station					
Completed	Length										
Purpose	Logged by	CORE									
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
33.5'-46.6'	Altered Amygdaloidal Basalt (cont.) Locally a little light reddish brown alteration. Locally a little pyrite.										
46.6'-46.9'	Vein Zone:- Rock altered to light reddish brown colors, spotted with chlorite. Irregular fracture running through section showing a little white quartz-calcite. Considerable fine pyrite through altered rock.										
46.9'-47.5'	Altered Amygdaloidal Basalt (as before)										
47.5'-47.7'	Mineralized Fracture Zone:- Rock altered to light reddish brown colors with chlorite along fractures 40-50% vuggy white quartz-calcite. Considerable pyrite mineralization (Zone @ about 60° to core)										
47.7'-57.0'	Altered Amygdaloidal Basalt (as before) Note:- @ (48.7', 1/4" white quartz-calcite with some pyrite & rust.										
57.0'-57.8'	Highly Epidotized and Silicified:- Fractured and cemented with quartz. A little fine pyrite (Zone @ 30° to core)										

N.M.P.

COMPANY: W. Hammerstrom Claims
South Lorrain Twp.

DIAMOND DRILL LOG

SHEET NO. 3

HOLE NO. 3

Sound	Bearing	Dip	Latitude	Level
Completed	Length		Departure	Place
Purpose			Elevation	Distance of Station

Footage	LOGGED BY	DESCRIPTION	Sample No.	CORE				Sample No.	Footage	Width	Assay Ounces	Average Values
				Footage	Width	Assay Ounces	Average Values					
57.8'-61.0'		Altered Amygdaloidal Basalt:- As before becoming sheared and softer towards end of section.										
61.0'-62.5'		Sheared and Highly Epidotized:- Becoming hard and silicified at end of section. Some rust staining and pyrite mineralization.										
62.5'-73.0'		Feldspar Porphyry:- Speckled with very numerous reddish feldspar phenocrysts up to 1/8" in diameter. Quite a few small rounded altered greenstone inclusions. Fairly hard rock. Numerous fractures at various angles to core. Some fractures filled with chlorite. Locally rust and pitting. A few small irregular quartz-calcite veinlets. Considerable pyrite throughout.										
73.0'-74.0'		Altered Amygdaloidal Basalt:- (as before?) Fractured with fractures showing some white calcite, some pyrite and rust										
74.0'		End of hole										

Note: Core size 7/8"
 signed. W. Hammerstrom

N.M.P.

COMPANY: KEEVIL CONSULTANTS LTD.
HAMMERSTROM OPTION
South Horrain Twp. Ont.

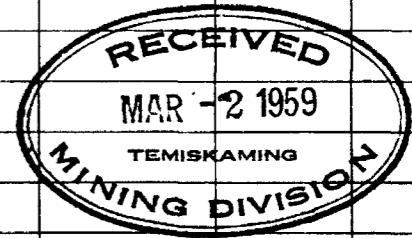
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DIAMOND DRILL LOG

SHEET NO. 1

HOLE NO. 1-A

Started <u>January 17th 1959</u>	Bearing <u>N 23° 50' W (Ast)</u>	Dip @ collar, <u>-55° @ 200', -55°</u>	Latitude	Level surface
Completed <u>February 22nd 1959</u>	Length <u>1429.0'</u>	@ 400', -55° @ 600', -55° @ 800', -56° @ 1000', -57° @ 1200', -52° @ 1400', -51°	Departure	Place <u>Claim T. 40 S 21</u> <u>242' 5.33" S 0' W. (Ast.) of Post No 1</u>
Purpose <u>Exploration</u>			Elevation <u>Rocley # 3 shaft</u> <u>Collar, - 234 (approx)</u>	Distance of Station

Footage	DESCRIPTION	Sample No.	CORE				Sample No.	Footage	Width	Assay Ounces	Average Values
			Footage	Width	Assay Ounces	Average Values					
0' - 21.0'	Casing:-										
21.0' - 51.5'	Haileyburian Diabase:- May be coarse grained phase of basalt. Medium to coarser grained. Mottled gray-green color with diabase texture. Locally a little irregular epidote. Scattered quartz-carbonate seams & threads. Scattered slips. Few grains pyrite & chalcopyrite.										
51.5' - 61.3'	Basalt Fine grained to locally very fine grained. Dark gray-green color. Generally massive, hard brittle rock. Locally some epidote. Locally a little disseminated pyrite. Scattered slips & fractures. Numerous narrow veinlets of quartz-carbonate.										
61.3'	Ragged Contact @ 45°										
61.3' - 72.7'	Porphyry:- Red to grey color. Gray feldspar phenocrysts. Small inclusions										
72.7'	Ragged Contact @ 25°										
72.7' - 139.1'	Haileyburian Diabase:- As before.										
139.1' - 139.4'	White Quartz Vein:- @ 45° to core. Few pyrite.										
139.4' - 150.5'	Basalt:- As before. (145.0' - 151.5', zone of rusty slips & fractures. Thin calcite coatings locally)										



N.M.P.

COMPANY:

*Keovil Consultants Ltd.
Hammerstrom option
South Lorrain Twp. Ont.*

DIAMOND DRILL LOG

SHEET NO. 2

HOLE NO. 1-A

Sounding		Bearing	Dip	Latitude		Level					
Completed		Length		Departure		Place					
Purpose				Elevation		Distance of Station					
Logged by		CORE									
Footage	DESCRIPTION	Sample No.	Footage	Width	Ag.		Sample No.	Footage	Width	Assay	
					Assay Ounces	Average Values				Assay Ounces	Average Values
150.5'-218.5'	<i>Haileyburian Diabase:- As at begining.</i>										
	<i>Lost Core:- 3' ground from 178.3'-196.5'</i>										
218.5'-220.5'	<i>Basalt:- As before. Slightly schistose @ 45°</i>										
220.5'-226.0'	<i>Porphyry:- Med. gray color. Gray feldspar phenocrysts.</i>										
226.0'-233.8'	<i>Fault Zone:- Basalt fractured and rusty</i>										
	<i>Lost return water. Cemented to recover</i>										
	<i>sludge and stop caving (950lbs cement used)</i>										
233.8'-265.0'	<i>Basalt:- As before</i>										
	<i>(238.5'-239.0' fractured & rusty)</i>										
	<i>265.0' Gradational change:-</i>										
265.0'-293.0'	<i>Haileyburian Diabase:- As before</i>										
	<i>(284', 6" rusty fracture zone)</i>										
293.0'-293.7'	<i>Basic Dike:- @ 45° Fine grained</i>										
293.7'-318.5'	<i>Haileyburian Diabase:- As before</i>										
318.5'-321.4'	<i>Vein Zone:- 10-15% pink to white</i>	1	318.5'-321.4'	2.9'	Trace						
	<i>calcite stringers @ 30-40° to core</i>										
	<i>Some associated qtz. Few grains pyrite</i>										
	<i>& chalcopyrite</i>										
321.4'-469.8'	<i>Haileyburian Diabase:- As before</i>										
	<i>469.8' Sharp change:-</i>										
469.8'-499.8'	<i>Basalt:- As before.</i>										
	<i>(482'-482.5', brecciated and altered</i>	2	482'-482.5'	0.5'	Trace						
	<i>to brick red. 15-20% white calcite</i>										
	<i>cementing breccia. A little pyrite.)</i>										

N.M.P.

COMPANY: Reevil Consultants Ltd.
Hammerstrom Option
South Karrair Twp. Ont.

DIAMOND DRILL LOG

SHEET NO. 3

HOLE NO. 1-A

Sound Completed	Bearing	Dip	Latitude			Level					
			Departure			Place					
			Elevation			Distance of Station					
Purpose		Logged by		CORE							
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
499.8'	Sharp Contact @ 50°										
499.8'-523.2'	Lamprophyre:- Massive. Fairly hard.										
523.2'	Sharp Contact @ 46°										
523.2'-538.0'	Altered Basalt:- As before but with 20-25% irregular epidotization & silicification. Very hard, massive rock.										
538.0'	Sharp Contact @ 40°										
538.0'-540.5'	Basic Dike:- chilled edges. Hard, massive.										
540.5'	Irregular Contact @ 40°										
540.5'-542.5'	Basalt:- As before.										
542.5'-545.8'	Lamprophyre:- Massive. Fairly hard.										
545.8'-561.5'	Basalt:- As before.										
561.5'	2" White Quartz Vein @ 55° Feo pyrite grains										
561.5'-592.3'	Basalt:- As before.										
592.3'	Sharp change @ 52°										
592.3'-616.3'	Altered Basalt:- 5-10% irregular epidote										
616.3'	Contact @ 45° (slip)										
616.3'-625.0'	Lamprophyre:- Fairly soft. Core broken and a little rusty.										
625.0'	Slip Contact @ 85° A little rust.										
625.0'-759.3'	Basalt:- As before										
	(740'-742' weak fracture zone @ 32°)										
759.3'	Arbitrary Contact:-										

N.M.P.

*Rovril Consultants Ltd
 Hammerstrom Option
 South Lorrain Twp. Ont*

COMPANY: *South Lorrain Twp. Ont*

DIAMOND DRILL LOG

SHEET NO. *4*

HOLE NO. *1-A*

Sound Completed		Bearing	Dip	Latitude			Level				
Purpose		Length		Departure			Place				
Logged by		CORE			Ag.		Distance of Station				
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
759.3'-793.0'	Basalt:- As before. Locally some epidote										
793.0'	Ragged Contact @ 55°										
793.0'-799.0'	Aplite Dike:- Fine grained. Light reddish grey. Siliceous. Fractured with associated strong chlorite & epidote alteration.										
799.0'	Sharp Contact @ 48°										
799.0'-826.5'	Basalt:- As before Massive. Hard.										
826.5'	Mud Seam:- About 1" wide @ 47°	3	@ 826.5'	1"	0.15						
826.5'-829.0'	Fractured & Intensely Altered:- Deep brick red with irregular chloritic fractures grading out into reddish to greyish siliceous material. Grains and clusters of bronze colored pyrite	4	826.5'-827.7'	1.2'	0.36						
829.0'	Gradational:-										
829.0'-992.0'	Basalt:- As before (970.7' strong chloritic slip. Up to 1/8" fillings of pyrite with minor cobalt minerals. Slip cuts core @ 25°.)										
992.0'	Arbitrary Contact or change:-										
992'-1022'	Basalt:- As before but with 20-25% irregular streaky silicification & chloritization.										
	(993' Strong irregular chloritic fracture @ 25° with striations. Small pods, up to 1/8" pyrite with minor cobalt minerals. some clusters of fine Millerite needles?)										

N.M.P.

DIAMOND DRILL LOG

Shot	Bearing	Dip	Latitude		Level						
			Departure	Elevation	Place	Distance of Station					
Completed	Length		CORE								
Purpose	Logged by		Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
			1022.0'-1022.6'	White Quartz Vein:- @ 60° Few grains pyrite.							
			1022.6'-1045.0'	Basalt:- As before.							
			1045.0'-1046.0'	Calcite Veinlets:- 3, 1/8" white calcite veinlets along irregular chloritic fractures @ 30°. A little pyrite, chalcopyrite & cobalt							
			1046.0'-1106.8'	Basalt:- As before. (1058.7' fractured. Slip @ 30° 1/4" bleb pyrite with cobalt. Some pyrite & cobalt disseminated along slip.) (1062.2' slips & fractures 1/4" zone of epidote. Thin smears of cobalt) (1086.6'-1087.2' slips @ 25-30°, one showing a little fine cobalt)							
			1106.8'	Irregular Contact:-							
			1106.8'-1131.5'	Lamprophyre:-							
			1131.5'	Contact:- @ 40°							
			1131.5'-1196.3'	Basalt:- As before.							
			1196.3'-1197.7'	Rusty Shear Zone:- @ 30° Bleached to light reddish colors. Chlorite, calcite & rust along shear planes.							
			1197.7'-1203.0'	Basalt:- As before. Locally rusty along slips and fractures							

N.M.P.

COMPANY:

Reed Consultants Ltd.
Hammerstrom Onton
South Ferrain Twp. Ont.

DIAMOND DRILL LOG

SHEET NO. 6

HOLE NO. 1-A

Completed		Bearing	Dip	Latitude			Level				
Purpose		Length		Departure			Place				
Logged by		CORE					Distance	of Station			
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
1203.0'-1204.0'	Fault Vein:- 1' ground core with small pieces of vein recovered showing calcite cemented breccia with a few grains chalcopyrite	5	@ 1203'	piece of vein	0.36.						
	Note:- Lost water from 1196'-1205.5'										
1204.0'-1205.7'	Basalt:- As before.										
1205.7'	Contact @ 35°										
1205.7'-1220.1'	Basic Dike:- Quartz Diorite:- (?)										
1220.1'	Contact @ 65°										
1220.1'-1263.0'	Basalt:- As before.										
1263.0'-1264.0'	Calcite Filled Breccia Zone:- @ 40° 10-15% pinkish to greyish calcite	6	1263'-1264'	1.0'	Trace						
1264.0'-1273.0'	Basalt:- As before.										
1273.0'-1274.0'	Lost core:-										
1274.0'-1278.3'	Fracture Zone:- chloritic slips & fractures Little pink calcite and greyish mineral	7	1274'-1279'	5.0'	Nil						
1278.3'-1289.0'	Basic Dike:- Lamprophyre?										
1289.0'-1397.5'	Basalt:- As before.										
1397.5'	Contact obscured:- Core broken										
1397.5'-1429.0'	Nipissing Diabase:- Fine grained chilled edge to medium grained at 1429.0'										
1429.0'	End of hole:-										
	Contractor:- N. Morissette										
	Core Size:- A.X.T. 1 1/4" diameter.										

N.M.P.

COMPANY: SOUTH LORRAIN TWP. ONT.

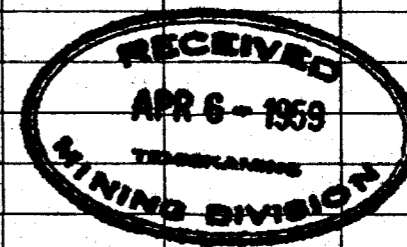
DIAMOND DRILL LOG

SHEET NO. 1

HOLE NO. 2-A

Start <u>February 24th 1959</u>	Bearing <u>S. 23° 50' E (ASH)</u>	Dip @ collar, -45°; @ 200', -42 1/2°;	Latitude	Level <u>Surface</u>
Completed <u>March 19th 1959</u>	Length <u>1190'</u>	@ 400', -40°; @ 600', -38°;	Departure	Place <u>Claim T. 40S 21</u>
Purpose <u>To test for extension of Ramardo No 2 Vein</u>		@ 800', -37°; @ 1000', -34°; @ 1190', -33°	Elevation <u>767' approx. (Ref. Reel No 3)</u>	Distance <u>231' S. 38° 50' W. of Post No 1</u>
	Logged by <u>J. Hammerstrom</u>		CORE <u>shaft collar 1000'</u>	of Station <u>Arbitrary datum.</u>

Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
0' - 21.0'	Casing:-(0'-1.5', above surface) (1.5'-3.0' through overburden, "glacial drift" (3.0'-21.0', in bedrock. Open seams at 12')										
21.0' - 25.8'	Haileyburian Diabase?:- May be coarser grained basalt. Med. grain. Med mottled green-grey. (Diabase texture) A few irreg. spots of light grey feldspar? Rock massive & fairly hard. Few slips & fractures. Few pyrite grains. Few qtz-carb. veinlets up to 1/8" in width.										
	(23.8', 1/2" epidote-qtz-carb @ 30°. Few pyrite)										
	(24.4', patch of irreg. epidote with some carbonate.										
25.8'	Contact obscured:- (Core broken)										
25.8' - 56.3'	Basalt:- Fine grained. Dark greyish colors. Color changes due to slight irreg. bleaching. Hard brittle rock. Numerous slips & fractures at all angles. Few thin qtz-carb. threads. locally a few grains pyrite.										
	(27', 2" shearing @ 50° streak pyrite & up to 1/8" seam calcite.)										
	(52.5' - 54.0', irregular slip along core.)										



N.M.P.

COMPANY:

REARL CONSTRUCTION LTD
 CHAMBERSTROM OPTION
 SOUTH LORRAIN TWP. ONT.

DIAMOND DRILL LOG

SHEET NO. 2

HOLE NO. 2-A

Section	Bearing	Dip	Latitude		Level						
			Departure	Place							
Completed	Length		Elevation		Distance of Station						
Purpose	Logged by		CORE								
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
56.3'-60.5'	Fault Zone:- (56.3'-58.0' fractured & irregularly bleached & chloritized. A little pyrite, some grains oxidized. Several 1/8" qtz-carb. threads, locally oxidized) (58.0'-58.2', white qtz) (58.2'-59.5', pink calcite with chlorite. Numerous grains & cubes of pyrite. Fractured with small quartz lined cavities) (59.5'-60.5', Lost Core.) 1300 lbs cement used in cementing	11	56.3'-60.5'	4.2	Trace						
60.5'-79.5'	Basalt:- (As before Fault Zone.)										
79.5'	Contact obscured:- (Core broken)										
79.5'-88.6'	Lamprophyre:-										
88.6'	Sharp contact:- (@ 40°)										
88.6'-122.0'	Basalt:- (As before) (88.6'-94.5', badly fractured)										
122.0'-128.5'	Basalt:- (As before) But locally with some irreg. chloritic alteration and bleached to light grey colors.										
128.5'	3" Vein Zone:- About 5% white qtz-carb. with light yellowish-grey altered wall rock @ 47° to core. A little pyrite, pyrrhotite and a few grains smaltite (cobalt minerals)	13	@ 128.5'	3"	Trace	Trace					

N.M.P.

COMPANY:

(HAMMERSTROM OPTION)
SOUTH LORRAIN TWP. ONT.

DIAMOND DRILL LOG

SHEET NO. 3

HOLE NO. 2-1

S		Bearing	Dip	Latitude			Level					
Completed		Length		Departure			Place					
Purpose				Elevation			Distance of Station					
Footage	Logged by	DESCRIPTION	Sample No.	Footage	Width	Ag. Assay Ounces	Co% Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
128.5'-143.3'		Basalt:- As before. Locally numerous hair-like seams of light grey alteration (135.0') 1" qtz-carb-epidote @ 48°. A few grains pyrrhotite and a little chalcopyrite.										
143.3'		1" Quartz-Carbonate & Light Yellowish Alteration:- @ 43°. Slight crushing of qtz-carb. Small grains of pyrite, chalc, pyrrhotite and cobalt minerals.	12	@ 143.3'	1"	Trace	0.01					
143.3'-187.5'		Basalt:- As before. Hard brittle. (146.2') 1/2" white qtz-carb. @ 45°. A little yellowish grey along edges. A few grains pyrrhotite, pyrite & chalcopyrite (161.4'-164.0' rock fractured, 1' lost core in section) (174.7'-176.7' chloritic slips at all angles. Locally thin pyrite smears)										
187.5'		2" 50% White Quartz Filled Breccia @ 43°. Pyrite cubes & grains. Quartz slightly crushed & calcite injected.										
187.5'-194.5'		Basalt:- As before. (189.0') 1/8" qtz-carb-epidote along core. Few pyrite. (192'-194.5' slips & fractures. Very little qtz-carb.)										

N.M.P.

COMPANY: (HAMMERSTREAM OPTION)
SOUTH LORRAIN TWP. ONT

DIAMOND DRILL LOG

SHEET NO. 4

HOLE NO. Z-A

S Completed		Bearing	Dip	Latitude			Level				
Purpose		Length		Departure			Place				
Logged by		CORE						Distance of Station			
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
194.5'	Arbitrary change:-										
194.5'-235.0'	Basalt:- As before but locally irregular streaky light green-grey and brown at about 45° to core. Hard brittle rock.										
X.	(224.0' few grains co with pyrite in 1/4" irreg. chloritic streak)										
	(227.3' 1" irreg. qtz @ 80° Fractures filled with pyrite & chlorite)										
	(228.5'-229.0' glassy fractured quartz chlorite & pyrite along fractures)										
	(234.0'-235.0' much irreg. streaky carb. & epidote ? Numerous grains & cubes pyrite)										
235.0'-236.4'	50-60% White Quartz @ 65° Inclusions of Altered Haileyburian Diabase:- few pyrite										
236.4'-265.2'	Haileyburian Diabase:- As previous sections but slightly schistose @ 50°. Few pyrite. Some irreg. epidote alteration										
265.2'	Contact:- @ 47° Above diabase finer grained.										
265.2'-313.2'	Altered Slightly Schistose Basalt:- Rock type similar to section 194.5'-235.0'										
X.	(299.5' 3" grey carbonate @ 55°. Specks pyrite & pyrrhotite.)	14	@ 299.5'	3"	Trace						

N.M.P.

COMPANY: (HAMMERSTRAEM OPTION)
SOUTH LORRAIN TWP. ONT.

DIAMOND DRILL LOG

SHEET NO. 5

HOLE NO. 2-A

S Completed	Bearing	Dip	Latitude	Level
	Length		Departure	Place
Purpose			Elevation	Distance of Station

Footage	LOGGED BY	DESCRIPTION	Sample No.	CORE <u>A9</u>				Sample No.	Footage	Width	Assay Ounces	Average Values
				Footage	Width	Assay Ounces	Average Values					
313.2'-314.6'		Shear - Breccia Zone :- @ 57° Chloritic shear-breccia with some qtz - calcite replacement. Some fine pyrite	15	313.2'-314.6'	1.4'	Trace						
314.6'-315.7'		Altered slightly schistose Basalt:- As before.										
315.7'		Contact:- Obscured (core broken)										
315.7'-372.0'		Basalt:- May be fine grained phase of Haileyburian Diabase. (328' 1/2" qtz - carb. & red alteration @ 45° Few pyrite grains) (330.5' 1/4" white qtz - carb @ 25°) (344'-348.5' rusty slips & fractures) (365'-372' slips & fractures)										
372.0'-434.0'		Haileyburian Diabase:- Numerous irreg. epidote - carbonate stringers & threads. (380'-383' fractured, numerous pyrite grains) (424.2' 1/4"-1" breccia @ 35° white qtz - calcite matrix. Some pyrite in walls)										
434.0'-435.0'		Fault Zone:- Fractured & sheared. 5-10% qtz - carb. streaks + thin 1/4"-1/2" pink calcite seam with inclusions. Consider pyrite. Zone @ 50-60° to core.										
435.0'-435.5'		Haileyburian Diabase:- As before.										
435.5'		Contact:- Ragged at high angle.										

N.M.P.

COMPANY: SOUTH LORRAIN TWP. ONT

DIAMOND DRILL LOG

SHEET NO. 6

HOLE NO. 2-A

Start		Bearing	Dip	Latitude		Level					
Completed		Length		Departure		Place					
Purpose				Elevation	Distance of Station						
Logged by		CORE									
Footage	DESCRIPTION	Sample No.	Footage	Width	Ag.		Sample No.	Footage	Width	Assay	
					Assay Ounces	Average Values				Assay Ounces	Average Values
435.5'-448.0'	Basalt:- Fine grained. Dark grey. Hard 5-10% irreg. epidote - carbonate. Few pyrite grains. Few slips & fractures.										
448.0'	Contact:- Poor, gradational										
448.0'-527.5'	Haileyburian Diabase:- More or less typical 3-5% irreg. epidote alteration. Few narrow qtz-carb. stringers & threads Few pyrite grains										
527.5'	Contact:- Last 15' of diabase gradation- ally finer grained.										
527.5'-658.0'	Basalt:- Similar to 435.5'-448.0' (534'-535', 3-5% irreg. pyrite grains & clusters)										
658.0'	Change to generally coarser grained rock.										
658.0'-761.0'	Basalt or Haileyburian Diabase:- (743'-761', numerous slips & fractures)										
761.0'	Sharp change @ 52°										
761.0'-795.0'	Basalt:- Fine grained. Med to dark grey. Hard. Brittle. 10-15% irreg. epidote altu- eration. Numerous slips & fractures										
795.0'-795.3'	4" White Quartz-Calcite Vein @ 50-55° 40-50% inclusions of chloritic material partly assimilated. Small irreg. patches of chalcopyrite + pyrite. Considerable disseminated Cobalt and some fine iron black mineral	16	795.0'-795.3'	4"	5.30						

N.M.P.

COMPANY: (HAMMERSTROM OPTION)
SOUTH LORRAIN TWP. ONT.

DIAMOND DRILL LOG

SHEET NO. 7 HOLE NO. 2-A

S		Bearing	Dip	Latitude			Level				
Completed		Length		Departure			Place				
Purpose				Elevation			Distance	of Station			
Logged by		CORE									
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
795.3'-808.6'	Basalt:- As before vein, but more altered 60-70% irregular epidotization @ about 40° (795.4' a few grains of Cobalt mineral)										
808.6'	Contact:- Sharp @ 48°										
808.6'-814.6'	Aplite Dike:- Very fine grained, siliceous. Dark reddish grey color with very numerous flecks of chloritic material										
814.6'	Contact:- Sharp @ 35°										
814.6'-822.5'	Basalt:- As section 761'-795'										
822.5'-827.0'	Fault Zone with 4" Quartz-Calcite Vein:- Brecciated and fractured zone with quartz-carbonate & chlorite fillings & replacements. At 823.5', 4" 50-60% qtz-calcite vein with chloritic material. Some fine pyrite, cobalt minerals and a little iron black mineral This vein cuts core at 45° Lost Core:- About 6" lost from 822.5' to 827.0'	17	@ 823.5'	4"	0.24						
827.0'-858.5'	Basalt:- As before. Struaky carbonate epidote alteration @ 50°. Few slips Few qtz-carb. stringers & threads.										
858.5'	Contact:- Irregular @ about 25°										

N.M.P.

COMPANY: (HAMMERSTROM OPTION)
SOUTH LORRAIN TWP. ONT.

DIAMOND DRILL LOG

SHEET NO. 8

HOLE NO. 2-A

S	Completed	Bearing	Dip	Latitude		Level					
		Length		Departure	Place						
Purpose			Elevation		Distance		of Station				
Logged by		CORE									
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
858.5'-871.8'	<u>Aplite Dike</u> :- Similar to 808.6'-814.6'										
871.8'	<u>Contact</u> :- Sharp @ 25° (chilled edge)										
871.8'-890.0'	<u>Basalt</u> :- As before but a little altered "softer"										
890.0'	<u>Arbitrary change</u> :-										
890.0'-893.8'	<u>Basalt</u> :- As before but with irreg. streaky silicification, carbonatization & epidotization. Hard brittle rock.										
893.8'	<u>Contact</u> :- Sharp @ 37°										
893.8'-897.5'	<u>Lamprophyre</u> :- Fine gr. Dark grey. Massive. Hard.										
897.5'	<u>Contact</u> :- Irreg @ 25°										
897.5'-1029.5'	<u>Basalt</u> :- Fine grained. Dark grey with some irregular epidote & silica alteration. Hard, brittle, massive rock. Few slips & fractures. Few qtz-carb. threads. Few pyrite.										
1029.5'	<u>2" Quartz-Calcite Vein</u> :- @ 45° to core. 40-50% irregular chloritic material pink to grey-white calcite with white quartz. Numerous faintly coarse pyrite grains. A little fine chalcopyrite. Some of pyrite may be platy millerite										

N.M.P.

COMPANY:

(HAMMERSTROM OPTION)
SOUTH LORRAIN TWP. ONT.

DIAMOND DRILL LOG

SHEET NO. 9

HOLE NO. 2-A

S		Bearing	Dip	Latitude		Level					
Completed		Length		Departure		Place					
Purpose				Elevation		Distance of Station					
Logged by		CORE									
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
1029.5'-1039.0'	Basalt:- As before.										
1039.0'	Contact:- Ragged, poorly defined @ 35°										
1039.0'-1068.0'	Basic Tuff:- Fine to medium grain. Dark green-grey Massive. Fairly hard. Grain orientation (poorly defined bedding?) at about 30-40°. Locally fairly well defined bedding. Locally some irreg. carbonate-epidote alteration										
1068.0'	Contact:- obscured (core broken)										
1068.0'-1085.0'	Flow Breccia:- Coarse mixture of fine grained basalt and above Tuff. Massive, hard, brittle rock. Few slips Few pyrite. A little irreg. carbonate-epidote.										
1085.0'	Contact:- Sharp? @ 35°										
1085.0'-1124.0'	Basalt:- Fine grained:- As before Tuff										
1124.0'	Contact:- Sharp ragged @ 55°										
1124.0'-1128.0'	Aplite Dike:- Similar to previous sections										
1128.0'	Contact:- Sharp ragged @ high angle.										
1128.0'-1136.0'	Basalt:- As before.										
1136.0'-1164.0'	Basalt:- As before but a little coarser grained & not quite so hard. (1161.3'-1161.7' irreg. patch of brick red alteration with intersecting chloritic seams. Some coarse brown sphalerite)										

N.M.P.

COMPANY: HAMMERSTROM OPTIONS
SOUTH LORRAIN TWP. CNT.

DIAMOND DRILL LOG

SHEET NO. 10

HOLE NO. 2-A

S		Bearing	Dip	Latitude		Level					
Completed	Length	Departure		Place							
Purpose			Elevation	Distance of Station							
Logged by			CORE								
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
1164.0'	Arbitrary Change:-										
1164.0'-1190.0'	Basalt:- Fine grained type:- Dark green grey. Massive. Hard. 5-6% irregular epidotization. Some irregular fractures with irregular bleaching. Few tension cracks.										
1190.0'	End of hole:-										
Contractor:- N. Morissette											
Core Size:- A.X.T. 1 1/4" diameter											
Core Recovery:- 99.98% (.2.5' lost core)											
Results:- (Possibly important structures)											
① Fault Zone 56.3'-60.5' (This zone caved badly and was cemented, using 1300 lbs of cement.)											
② 3" Quartz - Calcite / co @ 128.5'											
③ 1" " " / co @ 143.3'											
④ 4" " " / co @ 795.0'											
⑤ Fault Zone with 4" Quartz - Calcite Vein, 822.5' - 827.0'											
⑥ 2" Quartz - Calcite @ 1029.5'											

N.M.P.

COMPANY:

KEEVL CONSULTANTS LTD.
(HAMMERSTROM OPTION)
SOUTH LORRAIN TWP. ONT.

DIAMOND DRILL LOG

12-2-333

18460'

SHEET NO. 1

HOLE NO. 3-A

Start <u>March 21st 1959</u>	Bearing <u>S. 11° 30' E. (1st)</u>	@ collar - 52° @ 1000' - 46°	Latitude	Level <u>Surface</u>
Completed <u>April 17th 1959</u>	Length <u>1604</u>	Dip @ 200' - 51° @ 1200' - 45°	Departure	Place <u>319' N. 63° 30' W. of Post No. 2 T. 34601</u>
Purpose <u>To further test extension of Ramardo #2</u>		@ 400' - 49 1/2° @ 1400' - 42°	Elevation <u>Keley # 3 shaft collar - 243' approx.</u>	Distance of Station
		@ 600' - 48 1/2° @ 1600' - 40 1/2°	CORE (Keley # 3 shaft collar, 1000' arbitrary datum)	

Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values	
												Logged by <u>H. Hammerstrom</u>
0' - 17.0'	<u>Casing</u> :- 10' - 1.5' above surface (1.5' - 8.0' through boulders, gravel & soil) (8.0' - 17.0' in bedrock)											
17.0' - 65.4'	<u>Altered Basalt</u> :- Flow Breccia? Numerous slips & fractures. Locally epidotized.											
65.4'	<u>Sharp Contact</u> :- @ 60°											
65.4' - 66.1'	<u>Aplite</u> :- Fine grained. Reddish gray color.											
66.1' - 66.9'	<u>Sharp Contact</u> :- @ 60°											
66.1' - 98.9'	<u>Altered Basalt</u> :- As before.											
98.9'	<u>Contact</u> :- @ 35°											
98.9' - 103.5'	<u>Altered Dioritic Dike</u> :-											
103.5'	<u>Contact</u> :- obscured (core broken)											
103.5' - 111.5'	<u>Altered Basalt</u> :- As before											
111.5'	<u>Arbitrary Contact</u> :-											
111.5' - 168.0'	<u>Basalt</u> :- Similar to preceding sections of <u>Altered Basalt</u> but more massive & harder.											
168.0' - 169.0'	<u>Strongly Epidotized</u> :- @ 35° Few pyrite.											
169.0' - 246.0'	<u>Haileyburian Diabase</u> :- (?) May be coarser grained basalt? Mottled green-grey. Massive. Locally some epidote alteration scattered slips & fractures. Few narrow qtz-carb. veinlets.											

(242' - 246' brecciated zone at 25° some reddish alteration. 5-6% qtz-carb breccia matrix. Considerable pyrite.)

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 2

HOLE NO. 3-A

Start	Bearing	Dip	Latitude			Level					
Completed	Length		Departure			Place					
Purpose			Elevation			Distance of Station					
Footage	Logged by	Sample No.	CORE				Sample No.	Footage	Width	Assay Ounces	Average Values
	DESCRIPTION		Footage	Width	Assay Ounces	Average Values					
244.0'	Contact:- Obscured (Core broken)										
244.0'-258.0'	Basalt:- Fine grained. Hard. Brittle										
258.0'	Contact:- @ 45° ?										
258.0'-307.0'	Basalt:- As before but not so fine grained. (290.0' 1/4" qtz-carb.-chlorite @ 55°. Some pyrite)										
X	(299.5', 4" zone with some reddish alteration numerous pyrite cubes & grains. Several qtz-carb. th'ds @ 53°)										
X	(300.5', similar to @ 299.5' with up to 1/2" grey qtz-carb. vein @ 40°)										
307.0'-345.0'	Haileyburian Diabase:- (?) As before.										
X	(326'-328', fractured, pink calcite coatings on fractures, consid. oxidization)										
X	(336.5', 3/4" breccia @ 40° with calcite matrix. Few grains pyrite & chalcopyrite)										
345.0'	Contact:- (?) @ 55°										
345.0'-372.0'	Basalt:- Fine grained. Dark grey. Hard. Brittle.										
372.0'-372.5'	Quartz-Carbonate:- 50-60% reddish carbonate & white quartz with inclusions A little pyrite & chalcopyrite.										
372.5'-396.0'	Basalt:- As before.										
X	(380.0', 3" zone irregular breccia @ 35°. Grey qtz-carb fillings. Considerable pyrite & fine chalcopyrite. A few specks of black mineral)										

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 3

HOLE NO. 3-A

Sounding		Bearing	Dip	Latitude			Level				
Completed		Length		Departure			Place				
Purpose					Elevation	Distance of Station					
Footage	Logged by	CORE									
	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
396.0'-397.0'	<u>Fault Zone</u> :- Rock fractured. Pink calcite coatings along fractures. Lost part of water return. Cased & was cemented.										
397.0'-398.0'	<u>Basalt</u> :- As before.										
398.0'	<u>Contact</u> :- Sharp @ 25°										
398.0'-411.6'	<u>Aplite</u> :- Dark reddish grey. Siliceous.										
411.6'	<u>Contact</u> :- Slip @ 30°										
411.6'-459.0'	<u>Basalt</u> :- Coarser grained.										
X.	(413'-415', rusty slips & fractures)										
X.	(456'-459' rock much fractured.)										
459.0'	<u>Contact</u> :- Obscured (Core broken)										
459.0'-522.6'	<u>Lamprophyre</u> :- Fine grained. Altered.										
522.6'	<u>Contact</u> :- Obscured (Core broken)										
522.6'-526.4'	<u>Feldspar Perphyry</u> :- Numerous poorly formed reddish-greyish feldspar phenocrysts in fine grained granitic groundmass. A few small inclusions										
526.4'	<u>Contact</u> :- @ 50°										
526.4'-529.5'	<u>Basalt</u> :- As before.										
529.5'	<u>Change to</u> :-										
529.5'-531.6'	<u>Feldspar Perphyry</u> :- As above										

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 4

HOLE NO. 3-A

Start		Bearing	Dip	Latitude			Level				
Completed		Length		Departure			Place				
Purpose					Elevation		Distance of Station				
Logged by		CORE									
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
531.6-532.8'	<u>Zone of Reddish Alteration & Chlorite:-</u> @ 18° to core. A little irreg. qtz-carb. A few pyrite grains										
532.8-551.7'	<u>Grey Feldspar Porphyry:-</u> Small scattered greyish feldspar phenocrysts in fine grained grey granitic groundmass.										
551.7'	<u>Contact:-</u> sharp @ 33°										
551.7-592.5'	<u>Haileyburian Diabase:(?)</u> May be coarser grained basalt. Similar to previous sections. Finer grained towards end.										
592.5'	<u>Contact:-</u> Obscured (core broken)										
592.5-600.5'	<u>Basalt:-</u> Fine grained. Hard. Brittle										
X	(600.5'-601.2', brecciated & chloritized at 47°. some fine pyrite & chalcopyrite. Few qtz-carb threads.)										
X	(621.0'-622.5', brecciated & altered 15-20% irregular grey to pink calcite stringers & patches. Few pyrite grains. Zone cuts core @ 20° or 60°?)										
622.3'	<u>Contact:-</u> Sharp @ 45°										
622.3-687.0'	<u>Lamprophyre:-</u> Fine grained.										
687.0'	<u>Contact:-</u> Poorly defined @ 45°										

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 5

HOLE NO. 3-A

Start		Bearing	Dip	Latitude			Level					
Completed		Length		Departure			Place					
Purpose				Elevation			Distance of Station					
Footage	Logged by	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
127.0'-746.5'		Basalt:- As before										
746.5'-747.6'		Vein Zone:- (746.5'-747.0'; slips & fractures chiefly @ 50° A little qtz-carb.)										
		(747.0'-747.6'; quartz-calcite vein composed of pink calcite, finely banded grey calcite with pyrite chalcopryrite & cobalt arsenides finely disseminated along banding and crushed white-grey calcite with considerable fine chalcopryrite.)	3394	747.0'-747.6'	0.6' (7")	0.20						
747.6'-785.0'		Altered Slightly Schistose Basalt:-										
		785.0' Arbitrary Change:-										
785.0'-833.5'		Basalt:- Massive Hard. Brittle:										
		833.5' 1", 50% grey-white quartz-carbonate with chlorite along chloritic slip zone at 35°. Some fine pyrite & chalcopryrite										
833.5'-836.0'		Basalt:-										
		836.0' Contact:- obscured (core broken)										
836.0'-862.0'		Haileyburian Diabase:- Mottled green-grey.										
		862.0' Contact:- obscured (core broken)										
862.0'-966.0'		Basalt:- Fine grained. Hard. Brittle.										
		966.0' Contact:- @ 60°										
966.0'-989.5'		Haileyburian Diabase:- Similar to previous sections. Finer grained at contacts.										

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 6

HOLE NO. 3-A.

Start		Bearing	Dip	Latitude			Level					
Completed		Length		Departure			Place					
Purpose				Elevation			Distance of Station					
Footage	Logged by	DESCRIPTION	Sample No.	Footage	Width	Ag. Assay Ounces	Co%. Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
989.5'		No well defined change:-										
989.5'-1046.0'		Basalt:- As before. Fine grained										
1046.0'		Contact:- @ 52°										
1046.0'-1053.3'		Lamprophyre:- Fine to med. grain.										
1053.3'		Contact:- obscured (core broken)										
1053.3'-1122.0'		Basalt:- Coarser grained.										
1122.0'		Contact:- chloritic slip @ 25°										
1122.0'-1143.0'		Haileyburian Diabase (-?) May be coarser grained basalt:										
1143.0'-1143.8'		Vein Zone:- 2" white to pinkish calcite with inclusions & walls silicified & mineralized with fine cobalt arsenides.	19	1143.0'-1143.8'	0.8'	Trace	0.32					
1143.8'-1153.5'		Haileyburian Diabase:- As before										
1153.5'		Contact:- Obscured (core broken)										
1153.5'-1283.0'		Basalt:- Fine grained. Massive, Hard.										
1283.0'		Contact:- Ragged at high angle to core.										
1283.0'-1286.0'		Aplite:- chloritized.										
1286.0'		Contact:- Sharp @ 15°										
1286.0'-1310.0'		Basalt:- As before.										
1310.0'		Contact:- Slip @ 30°										
1310.0'-1322.0'		Aplite:- chloritized.										
1322.0'		Contact:- Obscured (core broken)										

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 7

HOLE NO. 3-A

Sta	Bearing	Dip	Latitude		Level							
			Completed	Length	Departure	Place						
Purpose		Elevation		Distance of Station								
Footage	Logged by	CORE						Sample No.	Footage	Width	Assay Ounces	Average Values
	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values						
1322.0'-1335.5'	Basalt:- As before.											
1335.5'	Contact:- Sharp @ 50°											
1335.5'-1363.3'	Lamprophyre:- Fine grained edges to coarse in centre.											
1363.3'	Contact:- sharp @ 50°											
1363.3'-1375.0'	Lamprophyre:- Cr fine grained basic intrusive.											
1375.0'	Contact:- (?) @ 35°											
1375.0'-1433.6'	Basalt:- Fine grained. Hard. Brittle											
1433.6'	Contact:- slip @ 45°											
1433.6'-1444.8'	Feldspar Porphyry:- Massive. Hard.											
1444.8'	Contact:- Ragged frozen at high angle.											
1444.8'-1502.5'	Basalt:- As before.											
1502.5'	2 1/2" Pink calcite Vein @ 35°											
1502.5'-1520.3'	Basalt:- As before Locally chloritized.											
1520.3'-1521.2'	Vein Zone:- Fault? Vuggy white calcite stringers in sheared chloritic zone	20	1520.3'-1521.2'	0.9'	Trace							
1521.2'-1540.6'	Basalt:- As before. Locally chloritized.											
1540.6'-1542.1'	Vein Zone:- Fault? Sheared chloritic with quartz-carbonate stringers	21	1540.6'-1542.1'	1.5'	Trace.							
1542.1'-1593.0'	Basalt:- As before. Locally chloritized.											
	Lost Core:- 1565'-1566'											
1593.0'	Contact:- Ragged at high angle.											

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 8

HOLE NO. 3-A

Start	Bearing	Dip	Latitude	Level
Completed	Length		Departure	Place
Purpose			Elevation	Distance of Station

Footage	LOGGED BY	DESCRIPTION	Sample No.	CORE				Sample No.	Footage	Width	Assay Ounces	Average Values
				Footage	Width	Assay Ounces	Average Values					
1593.0-1102.2'		Granitic Dike :- Hard Massive.										
1102.2'		Contact :- @ 45°										
1102.2'-1604.0'		Basalt :- As before.										
1604.0'		End of hole.										
		Contractor :- N. Murissette.										
		Core Size :- A.X.T. 1 1/4" diameter										
		Core Recovery :- 1' test core in 1604'										
		Results :- Possibly important skins cut at 746.5'-747.6' and at 1143.0'-1143.8'										

N.M.P.

3
 COMPANY: KEVIL CONSULTANTS LTD.
 (HAMMERSTROM OPTION)
SOUTH LORRAIN TWP. QNT.

can not be located
 DIAMOND DRILL LOG *14052*

SHEET NO. 1

HOLE NO. 4-A

Start <u>April 15th 1959</u>	Bearing <u>5.60° W. (Ast.)</u>	Latitude	Level Surface
Completed <u>May 16th 1959</u>	Length <u>1672.0'</u>	Departure	Place <u>75° 5.21' 30" E (Ast.) of post #1, T. 40521</u>
Purpose <u>To test indicated N-S "Break"</u>		Elevation <u>Kelly # 3 shaft collar - 225 (approx)</u>	Distance of Station

Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
0' - 11.0'	Casing: - (0' - 2.5' above surface) (2.5' - 11.0' in bedrock)										
11.0' - 21.3'	Basalt: - Fine grained. Dark grey color. Locally a little carbonate-epidote alteration. Hard. Massive. A few quartz-carbonate veinlets & threads. Scattered irregular fractures and slips. Locally a little pyrite.										
21.3'	Contact: - Obscured (core broken)										
21.3' - 25.0'	Lamprophyre: - Fine grained. Hard.										
25.0'	Contact: - Ragged at high angle.										
25.0' - 34.5'	Basalt: - As at beginning.										
34.5'	Contact: - Ragged @ 30°										
34.5' - 51.2'	Feldspar Porphyry: - Numerous small phenocrysts										
51.2'	Contact: - Ragged @ 30°										
51.2' - 66.5'	Basalt: - As at beginning.										
66.5'	Contact: - @ 48° 3/4" streaky qtz-carb-chl.										
66.5' - 77.7'	Lamprophyre: - Fine grained.										
77.7'	Contact: - Slip @ 32°										
77.7' - 88.1'	Feldspar Porphyry: - Few small inclusions										
88.1'	Contact: - Obscured. (core broken)										

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 2

HOLE NO. 4-A

Start		Bearing	Dip	Latitude			Level				
Completed		Length		Departure			Place				
Purpose					Elevation	Distance of Station					
Footage	Logged by	CORE									
	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
58.1' - 224.0'	Basalt:- As at begining of hole.										
	Rusty fractures in places.										
X	(203' - 204.5', slips, some rusty)										
X	(213' - 215', rusty slips & thin seams of calcite @ 28°)										
224.0'	Contact:- Sharp @ 50°										
224.0' - 239.0'	Lamprophyre:- Fine grained.										
239.0'	Contact:- Ragged @ high angle.										
239.0' - 244.5'	Basalt:- As before.										
244.5'	Contact:- Ragged @ high angle.										
244.5' - 246.0'	Feldspar Perphyry:-										
246.0'	Contact:- Sharp @ 25°										
246.0' - 250.0'	Basalt:- As before										
250.0'	Contact:- @ 25°										
250.0' - 263.5'	Feldspar Perphyry:- Numerous small phenocrysts.										
263.5'	Ragged Contact:-										
263.5' - 395.0'	Basalt:- As before.										
X	(347.0' - 363.6', 3-5% quartz - carbonate-chlorite stringers & threads. Some pyrite)										
X	(384.5' - 388.5', numerous fractures & slips. Thin coatings & fillings of calcite. A little pyrite locally)										
395.0'	Contact:- Obscured (Core broken)										

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 3

HOLE NO. 4-A

Station		Bearing	Dip	Latitude			Level				
Completed		Length		Departure			Place				
Purpose				Elevation			Distance	of Station			
Footage	Logged by	CORE									
	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
395.0'-400.0'	<u>Aplite</u> :- Dark reddish grey										
400.0'	<u>Contact</u> :- Obscured (Core broken)										
400.0'-408.4'	<u>Basalt</u> :- As before										
X.	(401.7'-403.2', <u>Vein Structure</u> :- @ 401.7', 1/4" pink calcite vein @ 72°. Remainder of section 5-10% irreg. patches white quartz & pink calcite Considerable pyrite in wallrock.										
408.4'	<u>Contact</u> :- @ 42°										
408.4'-434.5'	<u>Feldspar Porphyry</u> :- Small rounded inclusions										
L.C.	(421'-422', 1.0" lost core)										
434.5'	<u>Contact</u> :- Slip @ 50°										
434.5'-458.5'	<u>Harleyburian Diabase</u> :- (?) May be coarser grained basaltic flow rock with typically diabase texture. Medium grain. Medium mottled green-grey color Massive. Fairly hard. A few light colored rounded spots "spherules?" Few quartz-carbonate threads & veinlets. Few slips & fractures. Locally irregular carbonate-epidote alteration.										
458.5'	<u>Contact</u> :- Slip @ 65°										

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 4

HOLE NO. 4-A

Sounding		Bearing	Dip	Latitude			Level				
Completed		Length		Departure			Place				
Purpose					Elevation	Distance of Station					
Footage	Logged by	CORE									
	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
458.5' - 475.0'	Lamprophyre:- Fine grained										
475.0'	Contact:- Slip @ 32°										
475.0' - 492.5'	Aplite:- Fine grained Dark reddish grey										
492.5'	Contact:- Sharp @ 24°										
492.5' - 511.5'	Harleyburian Diabase:- As before.										
	(492.5' - 494.0', schistose @ 24°)										
511.5'	Contact:- Slip @ 40°										
511.5' - 536.0'	Feldspar Porphyry + Aplite:-										
536.0'	Contact:- Slip @ 43°										
536.0' - 552.0'	Harleyburian Diabase:- As before.										
	Locally fractured.										
552.0'	Gradational change:-										
552.0' - 558.2'	Fractured Basalt:- Some pyrite locally										
558.2' - 559.5'	Ragged Patch of Feldspar Porphyry:-										
559.5' - 562.7'	Fractured Basalt:-										
	L.C. (561.0' - 561.5' "0.5" lost core)-										
562.7'	Contact:- Obscured (core broken)										
562.7' - 600.0'	Feldspar Porphyry:-										
600.0'	Contact:- Sharp ragged @ 45°										
600.0' - 606.0'	Altered Basalt:- Green-grey. Med. hardness.										
606.0' - 606.6'	Fractured & Altered Feldspar Porphyry:-										
	chloritic inclusions. 5-10% irregular quartz-carbonate & pink calcite. Stringers & threads. Some reddish alteration. A little pyrite, chalcopyrite & fine cobalt.										

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 5

HOLE NO. 4-A

Station		Bearing	Dip	Latitude			Level					
Completed	Purpose	Length		Departure	Elevation	Place	Distance of Station					
Footage	Logged by	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
606.6'		Contact:- Slip @ 55°										
606.6'-636.0'		Basalt:- similar to previous sections. X (611.5, 1/4" - 1/2" shear with quartz-carbonate & streaks pyrite @ 45°. Some fine cobalt?)										
636.0'		Contact:- Slip @ 55°										
636.0'-641.4'		Lamprophyre:- Fine grained.										
641.4'		Contact:- Ragged @ 22°										
641.4'-647.0'		Basalt:- As before.										
647.0'		Contact:- Ragged at low angle.										
647.0'-650.3'		Feldspar Porphyry:- As before.										
650.3'		Contact:- Sharp @ 15°										
650.3'-651.5'		Basalt:- As before.										
651.5'		Contact:- obscured (core broken)										
651.5'-653.3'		Feldspar Porphyry:- As before										
653.3'		Contact:- Ragged at high angle.										
653.3'-661.0'		60-70% Feldspar Porphyry with several large inclusions of Basalt.										
661.0'		Contact:- Ragged at high angle										
661.0'-815.0'		Basalt:- As before. Fine grained. Dark grey.										
815.0'		Gradational to:-										
815.0'-844.0'		Haileyburian Diabase:- As before.										
		X (845.0'-846.0' chloritic slips @ 35-40° @ 845.5' 1/4" shear with qtz-carb. & chlorite a little pyrite, chalcopyrite & fine cobalt?)										

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 6

HOLE NO. 4-A

Survey		Bearing	Dip	Latitude			Level				
Completed		Length		Departure			Place				
Purpose					Elevation	Distance of Station					
Footage	Logged by	CORE									
	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
849.0'	Gradational to:-										
849.0'-896.2'	Basalt:- Fine to a little coarser grain Dark grey. Massive. Hard. Few slips & fractures. Few ptz-carb. Sts & thids.										
896.2'	Contact:- @ 50°										
896.2'-899.7'	Lamprophyre:- Fine grained.										
899.7'	Contact:- @ 35°										
899.7'-922.0'	Basalt:- As before.										
922.0'	Contact:- Ragged.										
922.0'-923.5'	Feldspar Porphyry:- As before.										
923.5'	Contact:- Ragged										
923.5'-929.8'	Basalt:- As before.										
929.8'	Contact:- Ragged at high angle.										
929.8'-932.6'	Lamprophyre:- Fine grained.										
932.6'	Contact:- @ 50°										
932.6'-936.4'	Basalt:- As before.										
936.4'	Arbitrary change.										
936.4'-970.0'	Flow Breccia:- Scattered small irreg. cherty fragments in basalt matrix										
970.0'	Contact:- @ 42°										
970.0'-977.7'	Lamprophyre:- Fine grained.										
977.7'	Contact:- Slip @ 30°										
977.7'-1007.7'	Flow Breccia:- As before. Consid. pyrite & pyrrhotite with locally a little chalcopyrite.										

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 7

HOLE NO. 4-A

Start	Bearing	Dip	Latitude		Level						
Completed	Length		Departure		Place						
Purpose			Elevation		Distance of Station						
Footage	Logged by	Sample No.	CORE				Sample No.	Footage	Width	Assay Ounces	Average Values
	DESCRIPTION		Footage	Width	Ag. Ounces	Co% Values					
107.7	Contact:- Sharp @ 45°. Following intrusive cutting across irreg. streaky effect in above rock.										
107.7-117.6	Lamprophyre:- Fine grained.										
107.6	Contact:- Obscured. (Core broken)										
107.6-102.5	Flow Breccia:- As before.										
102.5-1069.0	Basalt:- Fine grained. Dark green-grey.										
1069.0-1086.4	Lamprophyre:- Medium grained.										
1086.4	Contact:- @ 40°										
1086.4-1093.5	Basalt:- As before.										
1093.5	3" Red Feldspar Vein:- @ 50° cut by narrow qtz-carb. veinlets A few coarse grains chalcopyrite & a little bluish-black mineral.										
1093.5-1118.5	Basalt:- As before. Numerous tension cracks.										
1118.5-1124.9	Fault Breccia Zone:- Fault Vein:- @ 30° to core. 15-20% irregular white quartz-carbonate & pinkish calcite as stringers, threads & breccia matrix. Fragments & wallrock chloritized & locally altered to reddish brown colors. Locally some fine disseminated cobalt in chloritic fragments & in calcite-qtz-carbonate. Locally a little fine chalcopyrite & black mineral	22	1118.5-1119.5	1.0	Nil	-					
		23	1119.5-1122.5	3.0	Nil	0.04					
		24	1122.5-1124.9	2.4	Nil	-					

N.M.P.

COMPANY :

DIAMOND DRILL LOG

SHEET NO. 8

HOLE NO. A-A

Section		Bearing	Dip	Latitude			Level					
Completed		Length		Departure			Place					
Purpose				Elevation			Distance of Station					
Footage	Logged by	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
1124.7-1129.5		Basalt:- Fractured										
L.C.		(1125.5'-1126.0' "0.5" Lost Core.)										
1129.5-1130.0		Chloritic Shear:- @ 30°. Some pyrite.										
		mineralization. A little irregular pink calcite. A little fine cobalt on shear planes?										
1130.0-1132.4		Basalt:- Chloritized & weakly brecciated.										
		Well mineralized with pyrite.										
1132.4		1/8" - 1/4" shear @ 40°. Strong striations.										
1132.4-1144.0		Basalt:- As previous sections										
		15-20% irreg. carbonate-epidote alteration. Up to 1% pyrite.										
1144.0		Arbitrary change:-										
1144.0-1167.0		Basalt:- A little coarser grained										
		A little carb.-epidote. Few pyrite.										
1167.0		Arbitrary change:-										
1167.0-1310.0		Haleybunian Diabase:- (?) Spherulitic										
		Lava? Similar to previous sections.										
1310.0-1311.0		Breccia Zone:- @ 30° Weakly brecciated.										
		3-5% irreg. gty-carb. veinlets.										
1311.0-1358.0		Basalt:- With narrow irregular										
		sections of Basic Tuff?										
1358.0		Arbitrary change.										

N.M.P.

COMPANY :

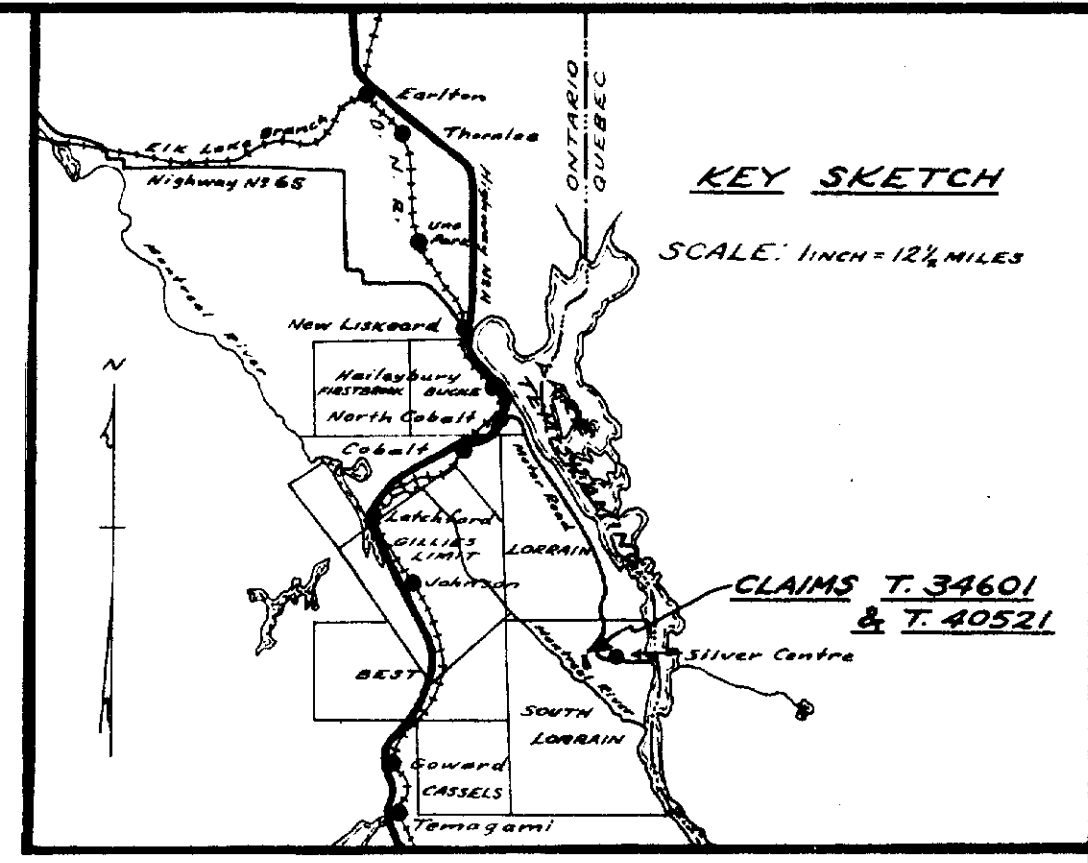
DIAMOND DRILL LOG

SHEET NO. 9

HOLE NO. 4-A

Start	Bearing	Dip	Latitude			Level					
			Departure			Place					
Completed	Length		Elevation			Distance of Station					
Purpose	Logged by	CORE									
Footage	DESCRIPTION	Sample No.	Footage	Width	Assay Ounces	Average Values	Sample No.	Footage	Width	Assay Ounces	Average Values
1358.0'-1413.0'	<u>Haileyburian Diabase</u> :- As before										
1413.0'	<u>Contact</u> :- Sharp @ 40°										
1413.0'-1432.0'	<u>Amygdaloidal Andesite</u> :- Small grey quartz-carbonate filled amygdules.										
1432.0'	<u>Contact</u> :- Ragged @ 40°										
1432.0'-1445.0'	<u>Haileyburian Diabase</u> :- As before.										
1445.0'	<u>Contact</u> :- Sharp @ 50°										
1445.0'-1446.0'	<u>Aplite</u> :- Fine grained. Dark reddish grey.										
1446.0'	<u>Contact</u> :- Gradational, poorly defined										
1446.0'-1553.8'	<u>Haileyburian Diabase</u> :- As before.										
1553.8'	<u>Contact</u> :- Sharp irregular at high angle.										
1553.8'-1632.5'	<u>Basalt</u> :- Fine to a little coarser grained.										
1632.5'	<u>Contact</u> :- Chilled edge of following <u>Nipissing Diabase @ 38° (Fused)</u>										
1632.5'-1672.0'	<u>Nipissing Diabase</u> :- Very fine grained at beginning. About medium-coarse grain @ 1672.0'										
1672.0'	<u>End of hole.</u>										
	<u>Contractor</u> :- N. Morissette										
	<u>Core Size</u> :- A.X.T. 1 1/4" diameter										
	<u>Core Recovery</u> :- 2.0' lost in 1672.0'										
	<u>Cementing</u> :- No cementing required (lost some water return at 40' & 278')										

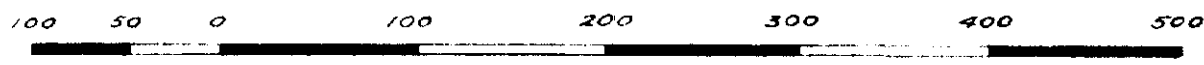
N.M.P.



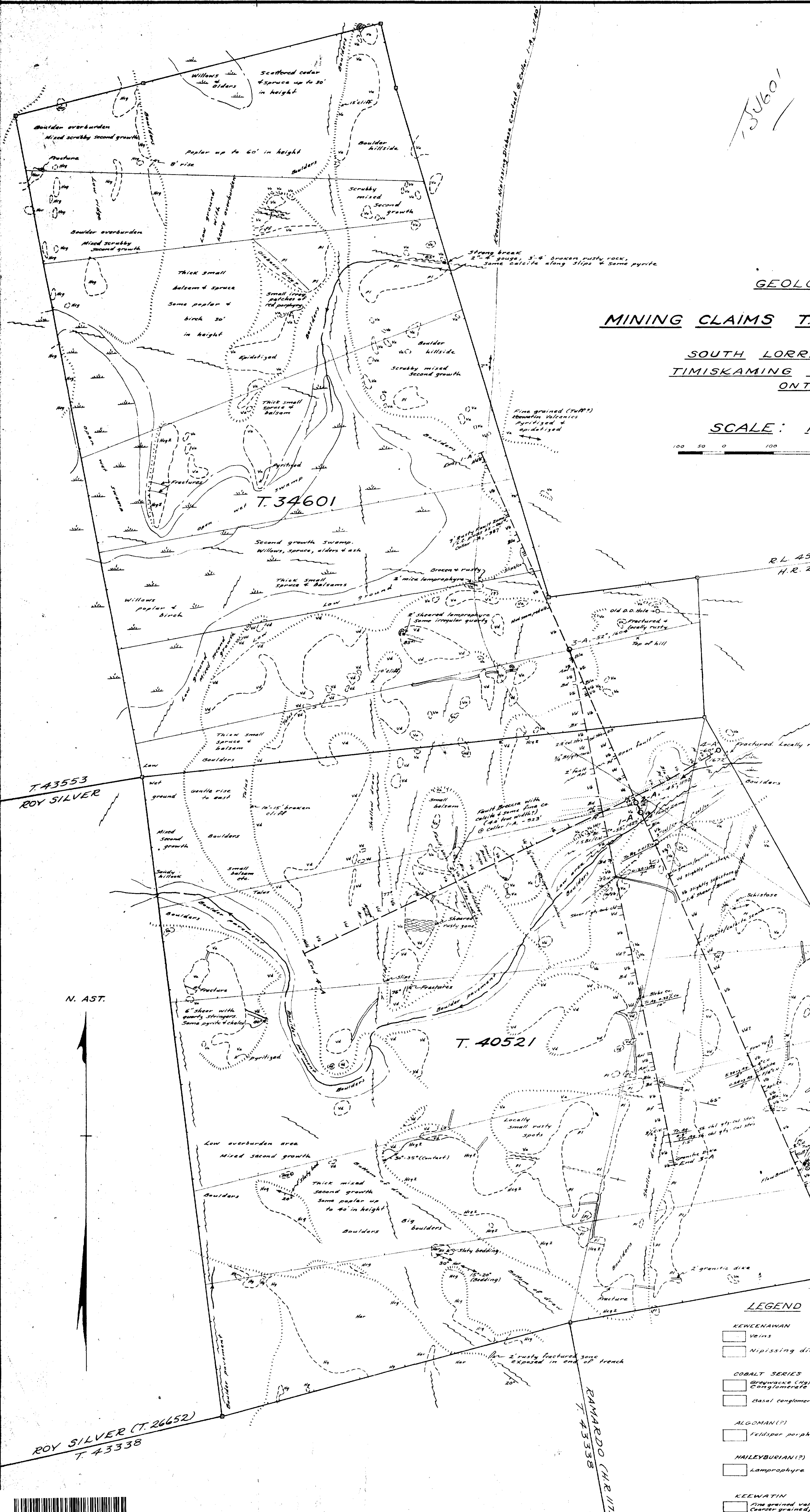
GEOLOGY OF
MINING CLAIMS T. 34601 & T. 40521

SOUTH LORRAIN TOWNSHIP
TIMISKAMING MINING DIVISION
ONTARIO

SCALE: 1 INCH = 100 FEET



BY: A. Hammerstrom
 November 17, 1954
 Revisions & additions 1959



SYMBOLS

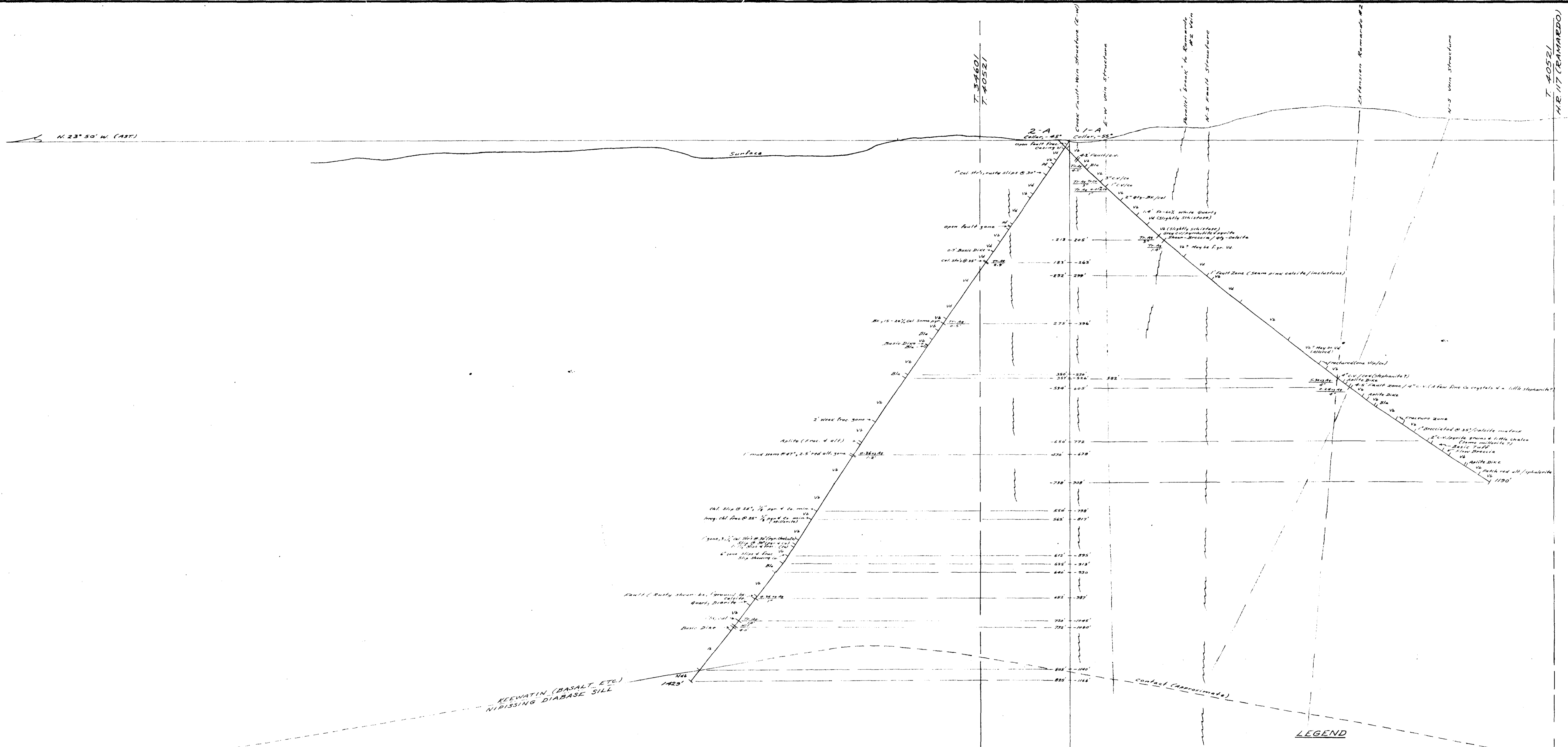
	Swamp
	Outcrop boundary
	Swamp boundary
	Open swamp boundary
	Contact, defined
	Contact, approximate
	Fault indicated or assumed
	Lower edge of rise in elevation
	Pit and dump
	Trench
	Strike and dip of veins, faults and shears
	Strike of vertical veins, faults and shears
	Strike and dip of formation, beds etc.
	Strike of vertical formation, beds etc.
	Claim post
	Surveyed claim boundary
	Picket line
	Diamond drill hole (Horizontal projection)
	Trail
	Shearing
	Small creek

LEGEND

	KEEWENAW Veins
	Nipissing diabase (Ndb)
	COBALT SERIES SEDIMENTS Bryozoa (Hs) Arkose (Hs) Conglomerate (Hs) Silt (Hs)
	Basal conglomerate (Hcg2)
	ALGOMAN (?) Feldspar porphyry (PR)
	HAILEYBURIAN (?) Lamprophyre (Lp)
	KEEWATIN Fine grained Volcanics, Pillow lavas (Vf) Andesite (Va), Should be Basalt (Vb) Coarse grained, massive type (Vd)

12-2-333
 South Lorrain
 Sup





2-A

LOCATION:
231' S 38° 50' W (AST) of post #1, T. 40521

BEARING:
S 23° 50' E (AST)

ELEVATION OF COLLAR:
Collar Keeley #3 Shaft, minus 233' (Approx.)

ACID DIP TESTS:

@ 200'	- 42°
@ 400'	- 40°
@ 600'	- 38°
@ 800'	- 37°
@ 1000'	- 34°
@ 1100'	- 33°

1-A

LOCATION:
242' S 33° 50' W (AST) of post #1, T. 40521

BEARING:
N 25° 50' W (AST)

ELEVATION OF COLLAR:
Collar Keeley #3 Shaft, minus 234' (Approx.)

ACID DIP TESTS:

@ 200'	- 55°
@ 400'	- 55°
@ 600'	- 55°
@ 800'	- 56°
@ 1000'	- 52°
@ 1200'	- 52°
@ 1400'	- 51°

LEGEND

- KEWEENAW**
 - Veins
 - Nipissing diabase (NWB)
- COBALT SERIES SEDIMENTS**
 - Dunham (Dn)
 - Hodge (Hd)
 - Conglomerate (Cg)
 - Silt (Slt)
 - Basal conglomerate (Hc32)
- ALGOMAN (A)**
 - Feldspar porphyry (FP)
- HAILEYBURIAN (H)**
 - Comprophyre (Blc)
- KEEWATIN**
 - Basalt (Vb)
 - Andesite (Va)
 - Coarse grained massive gneiss (Hallyburian Diabase) (Vd)

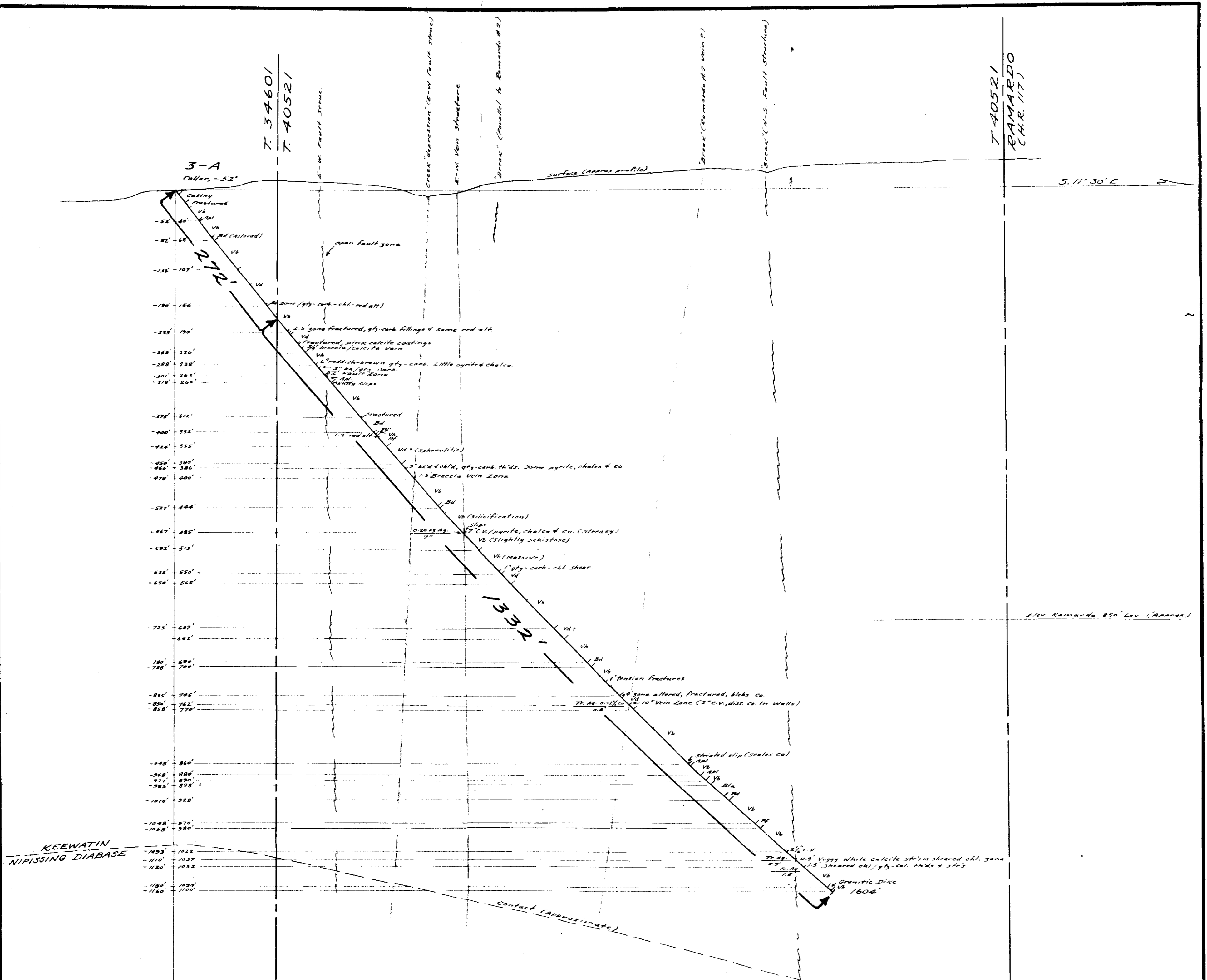
4052 South Lorrain Twp.

KEEVIL CONSULTANTS LTD.
(HAMMERSTROM OPTION)
SOUTH LORRAIN TWP., ONTARIO

D.D. HOLES 1-A & 2-A
SECTION LOOKING EAST

SCALE 1" = 100'





3-A

LOCATION
319' N 63° 30' W (AST) of post #2, T.34601

BEARING
S 11° 30' E (AST)

ELEVATION OF COLLAR
Collar Keeley #3 Shaft, minus 243' (Approx)

ACID DIP TESTS

@ 200'	- 51°
@ 400'	- 49%
@ 600'	- 48%
@ 800'	- 46%
@ 1000'	- 46%
@ 1200'	- 45%
@ 1400'	- 42%
@ 1600'	- 40%

- LEGEND**
- ALWILANAN**
 - Veins (calcite vein, "CV")
 - Nipissing diabase (NDb)
 - COBALL SERIES SEDIMENTS**
 - Greywacke (Gy) Arkose (Ark)
 - Conglomerate (Cng) Slate (Sl)
 - Basal conglomerate (Bc2)
 - ALGOMAN (?)**
 - Feldspar porphyry (F) Apite (Ap)
 - HULLYBURIAN (?)**
 - Amphiphyne (Aa) Basic dikes (Bd)
 - KEEWATIN**
 - Basalt (Ba) Andesite (An)
 - Coarse-grained, massive "gabbro" (Gabbro)

South
Keevil
Twp.
12-2-333

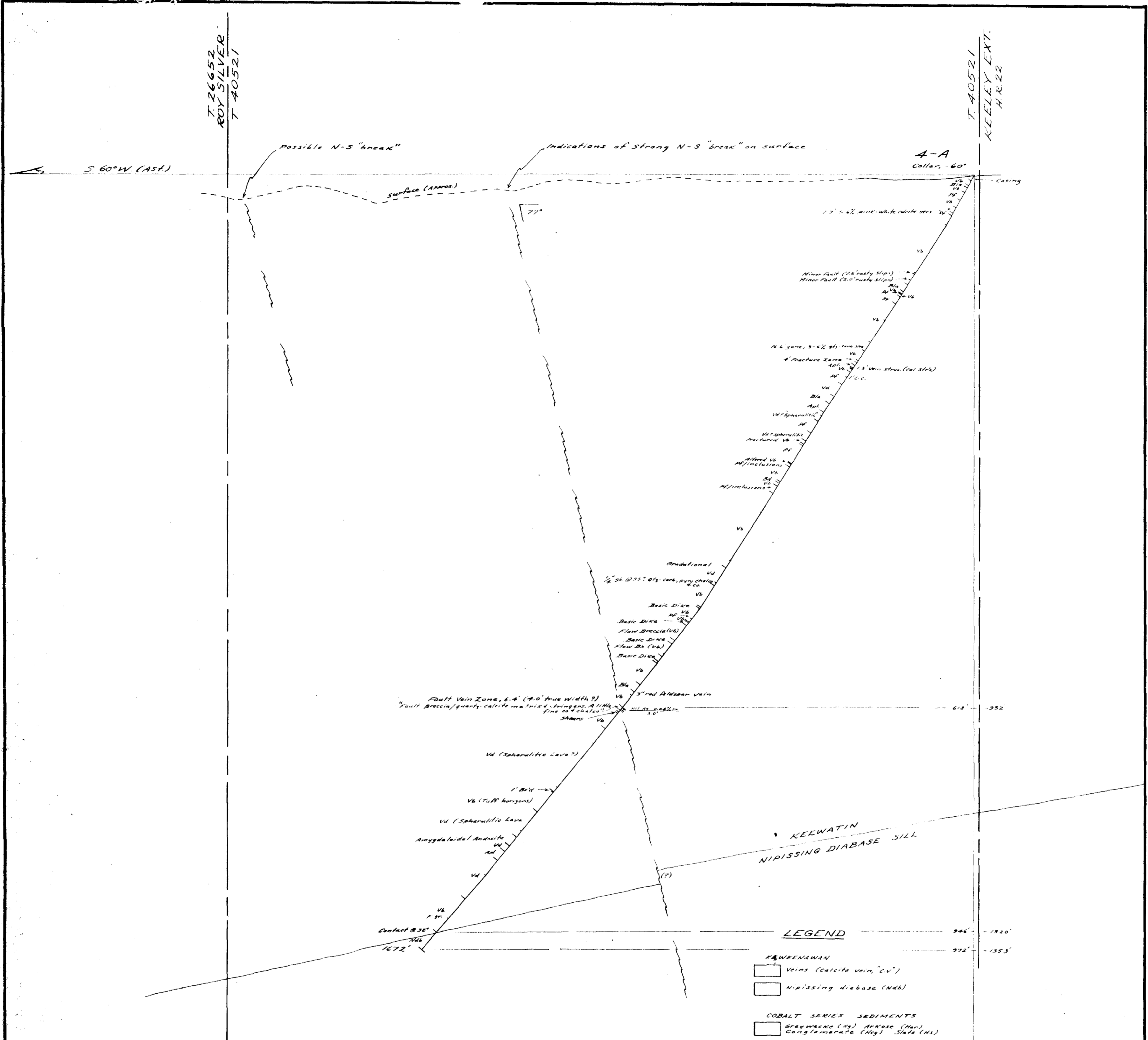
KEEVIL CONSULTANTS LTD
(HAMMERSTROM OPTION)
SOUTH LORRAIN TWP ONTARIO

D.D. HOLE 3-A T.34601
SECTION LOOKING EAST

SCALE 1" = 100'

H. Hammerstrom 1972





A-A

LOCATION
75' S 21° 30' E (Ast) of post #1 T. 40521

BEARING
S. 60° W. (AST)

ELEVATION OF COLLAR
Collar Keeley #3 Shaft, minus 225' (Approx.)

ACID DIP TESTS

@ 200'	- 57°
@ 400'	- 56°
@ 600'	- 58°
@ 800'	- 57 1/2°
@ 1000'	- 52 1/2°
@ 1200'	- 51 1/2°
@ 1400'	- 50°
@ 1600'	- 48 1/2°

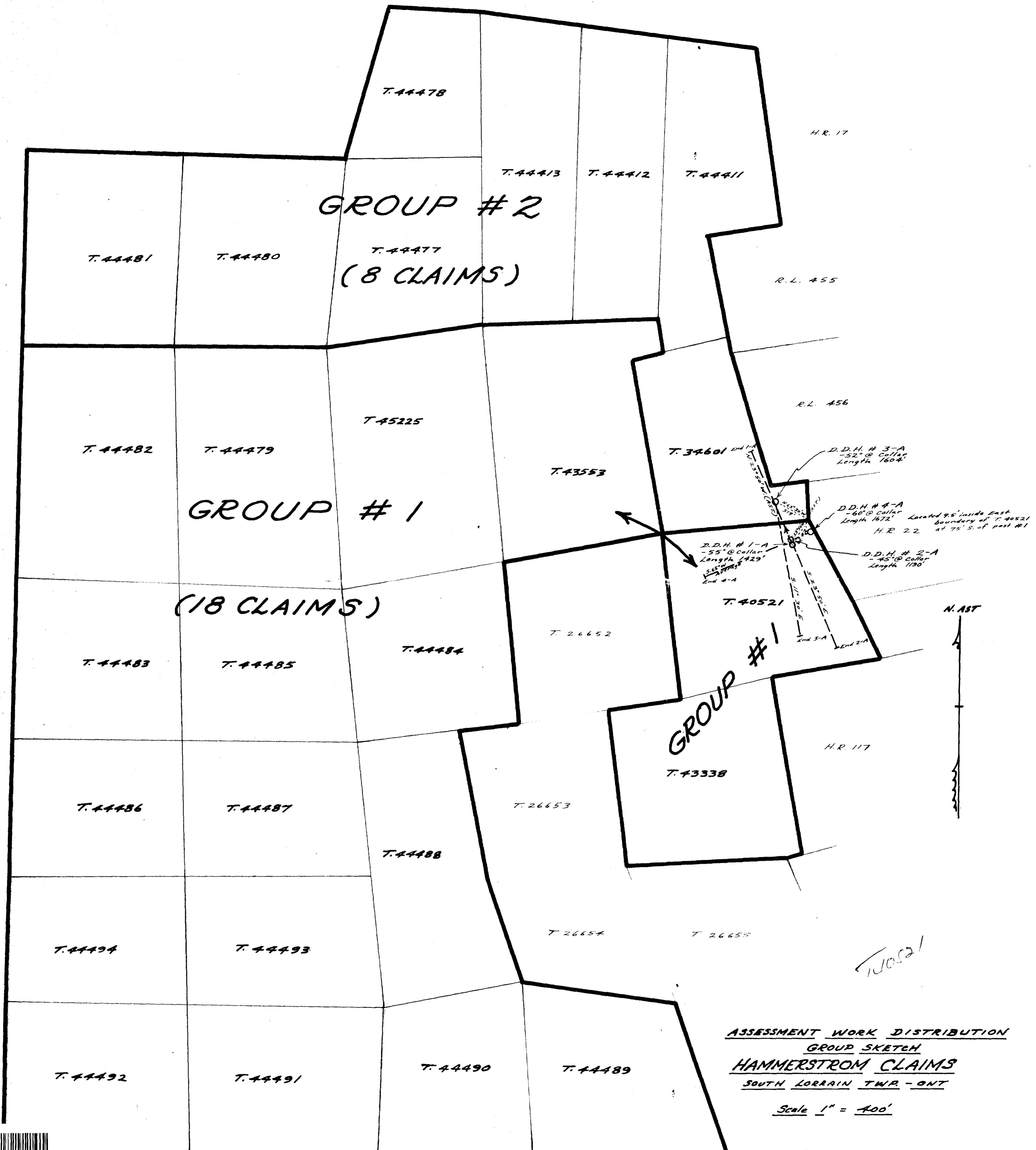
- LEGEND**
- KEWEENAW**
 - Veins (Calcite vein, "CV")
 - Nipissing diabase (Ndb)
 - COBALT SERIES SEDIMENTS**
 - Greywacke (Gg) Arkose (Har)
 - Conglomerate (Hcg) Slate (Hs)
 - Basal Conglomerate (Hcg2)
 - ALGOMAN (?)**
 - Feldspar porphyry (FP) Aplite (AP)
 - HAILEYBURIAN (?)**
 - Lamprophyre (BL) Basic dikes (BD)
 - KEEWATIN**
 - Basalt (Vb) Andesite (Va)
 - Coarser grained, massive type. "Haileyburian Diabase" (VD) Twp.

KEEVIL CONSULTANTS LTD
(HAMMERSTROM OPTION)
SOUTH LORRAIN TWP. ONTARIO

D.D. HOLE 4-A
SECTION LOOKING NORTH
T. 40521

SCALE: 1" = 100'





ASSESSMENT WORK DISTRIBUTION
GROUP SKETCH
HAMMERSTROM CLAIMS
SOUTH LORRAIN TWP. - ONT
Scale 1" = 400'

T. 40521

H. Hammerstrom March 2/00

