

52G15NW0110 52G-15NW-25-A SIXMILE LAKE

010

DIAMOND DRILLING

Area: SIX MILE LK

Report No:

WORK PERFORMED FOR: MATTAGAMI LAKE MINES LTD

RECORDED HOLDER: SAME AS ABOVE [x]

: OTHER [ ]

<u>CLAIM NO.</u>	<u>HOLE NO.</u>	<u>FOOTAGE</u>	<u>DATE</u>	<u>NOTE</u>
	SL-15-70/1	1060'	1970	
	SL-15-70/2	1625'	1970	
	SL-16-70-111	1060'	1970	
	SL-16-70-120	900'	1970	
	SL-15-72-32	765'	1972	
	SL-15-72-38	1641'	1972	
	SL-15-73-40	1202'	1973	
	SL-15-73-42	775'	1973	
	SL-15-73-44	747'	1973	
	SL-15-73-55	1223'	1973	
	SL-15-74-61	2303'	1974	

TOTAL: 11 DH 13301 FT

NOTES:

## MATTAGAMI LAKE MINES LIMITED - EXPLORATION DIVISION - DIAMOND DRILL HOLE RECORD

PROPERTY	STURGEON LAKE GROUP HROUGH 7 Area 15	LATITUDE	1026 + 00 NORTH	STARTED	August 7, 1970	DIP TEST					
HOLE NO.	SL-15-70/1	DEPARTURE	946 + 00 EAST	FINISHED	August 21, 1978	Footage	Corroded	Footage	Corroded	Footage	Corroded
BEARING	MINE SOUTH	ELEVATION	SURFACE	LENGTH	1060.0'						
DIP-COLLAR	-45	SECTION	54 + 00 WEST	LOGGED BY	A. TAMMAM						

FOOTAGE		DESCRIPTION	% Microclination	SAMPLE NO.	FOOTAGE			ASSAYS	
From	To				From	To	Length		
0.0	126.0	C A S I N G							
126.0	228.0	RHYOLITIC TUFF Light to medium grey, fine grained, dense, occasionally mixed fine grained with 2mm. to medium grained with loose lapilli (3-8mm) occasionally pronounced shearing @70° to core axis with heavy sericite; occasionally agglomeratic (8-15mm) intersection 1-2' wide.							
228.0	473.0	RHYOLITIC (RHYO-DACITIC) TUFF Medium grey, fine grained, dense matrix with loose felsic lapilli (2-3mm); dense, homogeneous texture throughout, occasional quartz feldspar veining; lower part characterized by strong shearing @65° to core axis and occasionally agglomeratic bands (8-15mm) 1-1 inches wide; generally siliceous (hard) particularly toward the lower part.							
473.0	562.0	RHYOLITIC TUFF Light grey, fine grained, sheared @ 70. Abundant greyish quartz veins throughout, occasional elongated blebs of fine grained py associated with chlorite, occasionally loose lapilli (1-4mm)							
562.0	580.0	QUARTZ ANDESITES Dark green-grey, fine to medium grained, equigranular texture, (flow?) with rounded individuals of microcline (buff colour) and plagioclase (greenish), occasionally rounded blue quartz metacryst, sheared (flow texture) at the contacts @90° to core axis; host rock heavily chloritized and sheared at the contact hence the obscured contacts; occasional quartz feldspar stringers and vein- lets.							
580.0	684.0	RHYOLITIC TUFF 580.0-595.0: Medium grey, fine grained, dense, homogeneous sili- ceous texture, top 6' darker grey heavily siliceous massive texture. 595.0-684.0: Lighter grey, fine grained, dense texture slightly brecciated; cherty like texture.							
684.0	782.7	Dark green-grey, fine to medium grained, finely speckled with chlorite; occasionally rounded blue quartz metacryst; occasional quartz-calcite stringers, slight shearing @55° to core axis; loose magnetite blebs throughout. Increase in chloritization and lapilli size (2-3mm) with depth.							















OBSOLETE SEE RE-LOG

MATTAGAMI LAKE MINES LIMITED - EXPLORATION DIVISION - DIAMOND DRILL HOLE RECORD

BLOCK '7', AREA '15' STURGEON LAKE #16. (ABITIBI)		LATITUDE	STARTED		DIP TEST	
DEPARTURE		FINISHED		Footage	Corrected	Footage
ELEVATION		LENGTH		DIP		
SECTION		LOGGED BY		DIP		
BLOCK '7', AREA '15' STURGEON LAKE #16. (ABITIBI)		LATITUDE	STARTED		DIP TEST	
DEPARTURE		FINISHED		Footage	Corrected	Footage
ELEVATION		LENGTH		DIP		
SECTION		LOGGED BY		DIP		
FOOTAGE		DESCRIPTION		SAMPLE NO.		FOOTAGE
From	To			From	To	Depth
0.0	26.0	CASING				
26.0	99.0	<b>RYHOLITIC TUFF</b> Pale to dark grey, finely banded, banding oriented 70° to core axis and is very well developed, red (hematite stain?) laminations composed of fine ash fairly uniform in size, moderately chloritic displaying chloritic banding, some elongated tabular white areas of soft tuffaceous material also fine ash sized. Softness of the rock indicates that it may be composed of altered feldspars or may be calcic? Well developed banding with occasional ripples may suggest a water laid tuff.				
99.0	179.0	<b>ANDRESITIC TUFF</b> Grey green, highly chloritic, banding oriented 70° to core axis displayed by parallel character of small tabular chloritic blotches, soft, composed of fine ash, some narrow (15m) white ash bands also soft and possibly calcic. Probably a heavily chloritized section of the banded tuff from 26.0 to 99.0.				
179.0	218.0	<b>RYHOLITE TUFF</b> Pale grey, very fine grained, thin tuffaceous banding, probably intermediate siliceous, some carbonate bands up to 3/8" wide slightly chloritic but with individual zones 2" to 3" wide of heavy chlorite.				
218.0	341.4	188.6-195.0 Heavily chloritic, tuffaceous banding 70° to core axis.				
341.4	441.9	<b>DACITIC TUFF</b> Pale blue grey, very fine grain, tuffaceous banding at 70° to core axis very prominent, occasional narrow carbonate bands.				
			191.0-413.0 Same tuff with numerous dark grey (more calcic?) bands. Occasional short (<2ft.) sections with subround elongated white acidic lapilli 1mm to 3mm.			
				5" 18512	386.0	391.0 5.0 M11
				5" 18513	391.0	396.0 5.0 M11
				5" 18514	396.0	401.0 5.0 M11
				5" 18515	401.0	406.0 5.0 M11
				3" 18516	406.0	411.0 5.0 M11
				4" silicy. sph. 18517	411.0	416.0 5.0 M11
				4" 18518	416.0	421.0 5.0 M11
				4" 18519	421.0	426.0 5.0 M11





MATTAGAMI LAKE MINES LIMITED - EXPLORATION DIVISION - DIAMOND DRILL HOLE RECORD

PROPERTY Sturgeon Lake Block 7 Area 15	LATITUDE 119 + 75 W	STARTED October 20, 1972	Footage	Corrected	DIP TEST Footage	Corrected	Footage	Corrected
HOLE NO. 6A-15-72-37	DEPARTURE 1. 44 + 00 E	FINISHED October 30, 1972	100	65° 00'	400	57° 00'	700	50° 00'
BELOW CORING 170 (Grid South)	ELEVATION Surface	LENGTH 765.0	200	61° 00'	500	55° 00'		
OP-COLLAR -70°	SECTION 44 + 00 E	LOGGED BY K. Huska	300	58° 00'	600	52° 00'		

FOOTAGE		DESCRIPTION	% Mineralization	SAMPLE NO.	FOOTAGE			ASSAYS	
From	To				From	To	Length		
0	64.0	CASING (Bedrock @ 50.0')							
64.0	69.0	RYHOLITE TUFF Light grey to white. Siliceous. Odd siliceous lapilli and white quartz-eyes (<1 mm). Fractured 5-10° to core axis.							
69.0	93.0	RYHODACITIC TUFF Dark grey-green. Siliceous. Slightly chloritized. Pink Rhyolitic band @ 78.0 - 79.0. Coarse tuff at the top of the unit @ 69.0 - 69.5. Fracturing 5-10° to core axis.							
93.0	159.8	RYHOLITE TUFF Cream coloured with light green tint. Cherty. Unit spotted with mafic blebs that have an irregular shape and average 1-2 mm. They do not appear to be fragments and are probably alteration products (chloritoid?, cordierite?). Subaxial shearing 5-10°. Unit is also finely laminated at 100.5' at 50° to core axis.							
159.0	197.5	RYHODACITIC TUFF Dark greyish-green. Siliceous. Sporadic light green cherty bands. Schistosity 30° to core axis. Subaxial fractures 5-15° to core axis.  188.2 - 197.5 Intermediate dike, medium grained with 1% disseminated pyrite. Pink quartz veins.							
197.5	201.0	ANDESITIC TUFF (BRACCIA ZONE?) Dark green. Bracciated and chloritized. Angular fragments with quartz filling the fractures. Unit may be related to the above dike.							



WATKINS BARR MINE LIMITED - EXPLORATION DIVISION - DIAMOND DRILL HOLE RECORD

PROPERTY Sturgeon Lake  
Block 7 Area 15  
HOLE NO. 81-15-72-38  
ARING Grid. 8000  
COLLAR -70°

LATITUDE 29 4 00 East  
DEPARTURE 135 4 00 North  
ELEVATION Surface  
SECTION 29 4 00 East

STARTED November 25, 1974  
FINISHED December 15, 1974  
LENGTH 1641.0'  
LOGGED BY K. Sivola

Footage	Corrected	DIP TEST Footage	Corrected	Footage	Corrected
100	68°00'	500/600	51°/49°	1100/1200	42°/40°
200	63°00'	700/800	49°/46°	1300/1400	39°/39°
300/400	57°/53°	900/1000	43°30'/43°30'	1500/1600	37°/36°

FOOTAGE	To
0	64.0
64.0	294.0
294.0	339.0
339.0	345.0
345.0	362.5
362.5	412.0

DESCRIPTION

CASING  
(bedrock at 56.0')

ANDSIFIT FLOW  
Dark green. Massive. Abundant quartz-carbonate stringers. Amygdaloidal at 181.0 - 203.0. Mafic phenocrysts (chlorite?) parallel the schistosity at 40° to the core axis. Acid like at 210.0 - 216.5 which is light grey with a greenish tint. Increase in silice at 270.0 - 282.5 just above a highly chloritised section at 282.5 - 294.0.

RHYOLITE FLOW (TUFF)  
Grey. Siliceous. Old chloritised band (at 333.5 - 336.0). Schistosity 47° to the core axis with chlorite phenocrysts parallel to the schistosity. Sporadic quartz-carbonate stringers. Subrounded quartz lapilli or amygdalae (2 mm). The wall looks more like a flow than a tuff.

ANDSIFIT TUFF  
Dark green. Highly chloritised with siliceous lapilli 1-4 mm in diameter. Schistosity 40° to the core axis.

GRAPHITIC TUFF  
Dark grey-black with 1% go along schistosity at 95° to the core axis. Low contact at 60° to core axis. Banding at 60° to core axis. Interspersed graphite and siliceous bands.

RHYOLITE TUFF  
Light grey. Siliceous. Schistosity 60° to core axis. Fine to medium grained tuff with mafic (dark grey) fragments 1-2 mm stretched and parallel to the foliation (392.5 - 394.5). Matrix is very siliceous around the fragments and has a green tint. At 396.0 - 412.0 there are quartz stringers (1/4 inch wide) most of which are 50° to the core axis. At 406.0 - 410 chloritised wall. At 410.0 - 412.0 dark grey siliceous Rhyolite with banding 60-65° to the core axis.

%  
Miscellaneous

SAMPLE  
NO.

FOOTAGE

To

Length

ASSAYS

U.S. GEOLOGICAL SURVEY, BUREAU OF MINES, WASHINGTON, D.C.

FOOTAGE	TO	DESCRIPTION
127.0 412.6	957.0	<b>ANDESITE BELOW</b> Dark green, highly chloritized. Abundant quartz-carbonate stringers with the odd amygdale 2-4 mm in diameter at the top of the wall. 472.0 - 473.0 Jaspine type disk 512.0 - 518.0 50% plus quartz-feldspar veins. Most rock is purplish and very siliceous. (Siliceous Andesite) Towards the bottom 518.0 - 520.0 there are mafic phenocrysts parallel to the schistosity at 25° to the core axis.
47.0 947.0	975.0	<b>RHYOLITE TUFF RHYOLITE TUFF</b> Dark gray, siliceous. Contains dark green mafic shreds (1 mm) parallel to the schistosity which is 70° to the core axis. Contact with the upper wall is not sharp but gradational from dark gray to dark green.
75.0 976.0	987.0	<b>SILICEOUS GRAPHITIC TUFF</b> Grayish-black. Dark grayish black and gray banding at 78° to the core axis. Schistosity at 70° to the core axis. Basal contact at 75-80° to the core axis. Contains trace pyritic cubes.
187.0 987.0	1107.5	<b>RHYOLITE BELOW</b> Grey to dark gray, siliceous. Amygdaloidal at the top of the wall. Calcite amygdules are 1 mm in diameter. Quartz veining at the top of the wall appears to get coarser towards the base of the wall.
1107.5	1117.0	<b>SILICEOUS GRAPHITIC TUFF</b> Dark gray-black with 1% po specks parallel to the schistosity.
1117.0	1181.0	<b>RHYOLITE TUFF</b> Grey, siliceous. Minor banding. Gradational change from 1178.4 - 1181.0.
1181.0	1274.0	<b>ANDESITE</b> Dark green, homogeneous, intermediate in composition, odd quartz stringers. Fine grained.
1274.0	1410.0	<b>RHYOLITE TUFFS AND AGGLOMERATES</b> Grey to dark grey with a light grey section at 1310 - 1319.0. Odd cherty wall. Micro Aggl. at 1276 - 1277.0 which contains grey siliceous fragments (angular, 5-10 mm) stretched along the schistosity at 60-70° to core axis. Tuffs are fine to medium grained with the odd siliceous fragment 10-20 mm.

Section 1247  
No. 7  
11-12-31

No.	FOOTAGE		ASSAYS				
	To	From	As	Ag	Fe	Cu	Pb
1 py. fr., sph	24123	1274.0 - 1279.0	5.0	nil	nil	nil	nil
1 py-sph, fr., sph	24124	1279.0 - 1282.0	3.0	.006	nil	.01	.01
cl py	24125	1282.0 - 1287.0	3.0	nil	nil	nil	nil

U.S. EXPLORATION DIVISION, D.D.K. RECORD  
FOOTAGE

Footage	To
1440.0	
410.0	1411.0
1411.0	
411.0	1460.0
1460.0	
460.0	1560.0
1560.0	
560.0	1550.3
1550.3	
50.3	1661.0
1661.0	
	1661.0

DESCRIPTION
1289.5 - 1289.0 Cherry Rhyolite Light grey and gray siliceous banding R <sub>0</sub> to C.A. 15 py-po 4 traces of aph.
1326.0 - 1349.0 RHYOLITE Micro Aggl. Gray. Siliceous with subrounded bombs <40 mm (2-4 inches)
1348.0 - 1357.0 Traces 1-2% py-po 1350.5 - 1351.5 20-30% py
1372.0 - 1393.0 Intermediate dike, 2 directions & dike Dark green and fine grained. Agglomerates at contact have been chloritized.
CHLORITIZED CARBONACEOUS RHYOLITE DIKE
ANDSTITE (DIKE ? ?) Dark green, fine grained.
QUARTZ EYE RHYOLITE TUFFS AND AGGLOMERATES Grey to dark grey. Blue quartz eyes 1 mm in diameter make up 5% of the matrix. Moderately chloritized at 1460 - 1525.0. Fragments are dark grey, subangular siliceous and average 10-20 mm but are only found in sporadic 1-2' sections. Matrix around the fragments is grey.
1460.0 - 1530.0 Coarse tuff
1530.0 - 1540.0 Quartz Eye Rhyolite Micro Aggl. Light grey to dark grey. Siliceous with dark grey fragments set in a grey matrix. Quartz eyes also present. Traces of py-po-sphalerite disseminated through this section. The sphalerite and py are associated with small (1 mm) pyritic blebs.
CHERRY RHYOLITE TUFF White to grey. Siliceous. Cherry looking with sphalerite- py bands and trace (specks) at the top of the tuff.
DACITE Dark grey-green. Medium grained. Homogeneous. Cold quartz stringers. Blue quartz eyes (band lens).
END OF HOLE:

Sample NO.	FOOTAGE		Loss wt.	ANALYSIS					
	From	To		As	AF	Zn	Cu	Pb	
24126	1346.0	1351.0	5.0						
24127	1351.0	1357.0	1.0						
24128	1357.0	1357.0	5.0						
24125	1517.5	1522.5	5.0	.003	nil	nil	nil	nil	nil
24130	1522.5	1527.5	5.0	nil	nil	.1	nil	nil	nil
24131	1527.5	1537.5	5.0	.004	nil	.2	.01	.02	.01
24137	1537.5	1537.5	5.0	.004	nil	.2	nil	.01	.01
24133	1537.5	1547.0	4.7	.005	nil	.2	.01	.02	.01
24134	1547.0	1547.0	0.6	.006	.77	2.4	.03	.23	.02
24135	1547.0	1544.2	1.4	.006	.36	.2	.02	.02	.02
24136	1544.2	1544.2	0.5	.008	1.20	3.3	.42	.31	.06
24137	1544.2	1545.5	1.2	.004	nil	.3	.01	.06	.05
24138	1545.5	1546.1	0.3	.007	.16	.1	.04	.05	.05
24139	1546.1	1550.1	4.0	.003	nil	.1	nil	.02	.02



ATKADAN LAKE MINES LIMITED - EXPLORATION DIVISION - DIAMOND DRILL HOLE RECORD

PROPERTY Sturgeon Lake  
Block #7<sup>a</sup> Area #15<sup>a</sup>  
P. NO. S.L. 15-75/40  
HOLE G-18 South (170°)  
COLLAR .60°

LATITUDE 134 4 00 N  
DEPARTURE 46 4 00 E  
ELEVATION Surface  
SECTION 46 4 00 E

STARTED January 10, 1973  
FINISHED January 25, 1973  
LENGTH 1413.0'  
LOGGED BY K. Hvalby

Feet	DIP TEST		Feet	DIP TEST
	Collected	Postage		
100	58°30'	700	53°00'	1300
200	57°00'	800	51°00'	1400
300	57°00'	900	48°00'	
400	56°00'	1000	48°00'	
500	55°00'	1100	46°30'	
600	54°00'	1200	44°30'	

FOOTAGE	To	DESCRIPTION	MINERALIZATION	SAMPLE NO.	FOOTAGE			ASSAYS	
					From	To	Length		
0	200.0	CASING (Water depth 18.0')							
200.0	661.0	<p><b>ANDESITE FLOW</b> Green to dark green. Intermediate. Sporadic quartz stringers. Numerous amygdales 2-5 mm. Mafic phenocrysts (Biotite) parallel to the schistosity at 35° to Core Axis. Increase in silice towards the base of the unit so that the rock becomes a lighter shade of green.</p> <p>487.0 - 492.0 Chloritized Carbonaceous Rhyolite Dike 511.5 - 516.5 Acid Dike</p> <p>432.0 - 474.0 Brecciated Flow. Angular fragments 1/2 - 2 inches and set in a siliceous matrix (quartz).</p> <p>565.0 - 580.0 Mafic dike. Dark green. Intermediate. Abundant quartz veins 1/2 - 1 foot wide. 10-20% magnetite.</p>							
661.0	735.0	<p><b>DACITE</b> Grey-green. Lighter in colour than the above unit. Schistosity very weak. Odd quartz amygdale and quartz-carbonate vein. Mafic (chlorite fished). Phenocrysts parallel to the schistosity at 40-50° to Core Axis.</p>							
735.0	766.0	<p><b>"QUARTZ-EYE" RHYOLITE TUBE</b> Grey to light grey. Siliceous. Quartz eyes 1-2 mm in diameter. Schistosity 55° to Core Axis with mafic dykes parallel to it. Quartz eyes are white and elliptical.</p>							
766.0	770.0	<p><b>ANDESITIC DIKE</b> Dark green. Fine grained. Massive. Sharp contacts.</p>							
770.0	787.5	<p><b>"QUARTZ-EYE" RHYOLITE MICRO AGGLOMERATE</b> Grey to light grey. Siliceous. Fragments are of two compositions white and dark grey, subrounded and very siliceous. Matrix around the fragments is light grey. Trace py-po. No other sulfides.</p>							

E.M. EXPLORATION DIVISION, D.D.M. RECORD

FOOTAGE		DESCRIPTION	R Microschistosity	SAMPLE NO.	FOOTAGE			ASSAYS
From	To				From	To	Loc. #	
87.5 787.5	837.0	<p><b>GRAPHITIC TUFF</b> Dark gray-black. Mostly graphitic units but the occasional Rhyolite Micro Agglomerate section at 789 - 790.1, 801.5 - 802.5 containing dark gray fragments set in a gray siliceous matrix. Fragments vary from 2-10 mm and are stretched along the schistosity at 55-60° to C.A. The graphitic bands contain 2-2% po.</p> <p>803.5 - 808.0 <b>AND-SITE DIKE</b> Dark green. Massive and fine grained with quartz veins 1-2 inches wide.</p> <p>829.0 - 830.0 <b>Chloritized Carb. Rhy. dike.</b> Yellowish green. Quartz veins at both contacts. Mafic fishes parallel to the schistosity.</p>						
37.0 837.0	853.0	<p><b>RHYOLITE TUFF</b> Dark grey to white at the base of the unit. Siliceous. Fine tuffaceous unit.</p>						
53.0 853.0	873.0	<p><b>RHYOLITE MICRO AGGLOMERATE</b> Light grey and dark grey. Siliceous. Fragments 2-30 mm in diameter. Set in a white siliceous matrix. Fragments are closely packed and subangular. Size of the fragments grades downward with the smaller fragments at the top and the larger ones at the base of the unit.</p>						
73.0 873.0	942.6	<p><b>RHYODACITIC-RHYOLITE FLOW &amp; TUFFS</b> Dark grey. Siliceous. Numerous quartz-carbonate stringers. Amygdule/quartz 1 mm in diameter.</p> <p>932.0 - 942.6 <b>Rhyolite Tuff</b> Dark grey, siliceous. Lower contact at 58° to C.A. Agglomeratic section at 947.0 - 947.6 with fragments 5-10 mm.</p>						
42.6 942.6	960.8	<p><b>SILICEOUS GRAPHITIC TUFF</b> Dark grey-black. Well banded at 80° to core axis. Schistosity at 70° to core axis. Trace py-po.</p>						
60.8 960.8	995.0	<p><b>RHYOLITE MICRO AGGLOMERATE</b> Dark grey and tuffaceous from 960.8 - 969.0 grading into a light grey to white Micro Agglomerate. Fragments are 10-30 mm, subangular, and stretched along the schistosity. Matrix around the fragments is a white siliceous matrix.</p>						

EXPLORATION DIVISION, D.M. RECORD

FOOTAGE		DESCRIPTION	SILICATE	MAG.	Feas.	FOOTAGE			ASSAYS
From	To					Feet	Yds	Length	
995.0	1015.0	<b>RHYOLITE TUFFS AND AGGLOMERATES</b> Dark grey. Siliceous. Unit contains sporadic bands 2-4 inches which are light grey and subrounded. Slightly chloritized toward the base of the unit. Numerous fragments 2-4 in. Matrix around the fragments is buffaceous.							
1015.0	1032.5	<b>CACAPYNE CHERTY RHYOLITE TUFF</b> Crassy white to dark grey at the base of the unit. Numerous cherty bands 1-2 feet wide. Banding at 65-70° to core axis. 1020.0 - 1021.5 Andesite tuff. Dark green. Highly chloritized. 1029.0 - 1029.0 Intermediate dike. 1020.8 - 1026.0 } <b>CHLORITIZED CARB. RHY.</b> 1030.0 - 1031.0 } <b>DIKES.</b>							
1032.5	1036.0	<b>GRAPHITIC TUFF</b> Black. Bracciated by quartz stringers.							
1036.0	1084.0	<b>RHYOLITE TUFF</b> Grey-dark grey. Siliceous. Minor cherty bands. Odd grey siliceous fragment 5-10 mm. Schistosity at 60° to C.A.							
1084.0	1136.0	<b>RHYOLITE-RHYODACITIC FLOW/TUFF?</b> Dark grey. Massive. Homogeneous. Slightly chloritized. Medium grained. No fragments present. Lacke schistosity.							
1136.0	1152.5	<b>CHERTY RHYOLITE TUFF</b> White to light grey from 1136.0 - 1141.0 with banding at 70° to C.A. Dark grey to light grey with fine cherty tuff banding. Traces of py-po.							
1152.5	1182.0	<b>RHYOLITE TUFFS AND GRAPHITIC TUFFS</b> Grey and black bands. Alternating Rhyolite tuffs and graphite bands. Banding at 70° to core axis. Widths of the bands vary in size.							
1182.0	1202.0	<b>RHYOLITE TUFF</b> Grey to dark grey. Numerous banding at 70° to core axis. Cherty (light grey, shuller to flint) bands are sporadic.							



ATAGAMI LAKE MINES LIMITED - EXPLORATION DIVISION - DIAMOND DRILL HOLE RECORD

PROJECT	Sturgeon Lake Block "7" Area "15"	LATITUDE	163 4 75 N	STARTED	January 22, 1973	Footage	Corrected	DIP TEST Footage	Corrected	Footage	Corrected
NO.	87-15-73/42	DEPARTURE	46 4 00 E	FINISHED	January 28, 1973	100'	62°	400'	49°	700'	36°
COORD.	170°00' (Grid South)	ELEVATION	Surface (Lake)	LENGTH	777.0	200'	57°30'	500'	44°		
COLLAR	-60°	SECTION	46 4 00 E	LOGGED BY	J. Stephenson	300'	50°30'	600'	40°		

FOOTAGE	To	DESCRIPTION	Microfossils	SAMPLE NO.	FOOTAGE		ASSAYS	
					From	To	Length	
0.0	74.0	CASINO (Bedrock at 60.0', vertical water depth 45.0')						
74.0	145.0	CHLORITIZED RHYOLITIC MICRO AGGLOMERATE Grey to white to greyish green; nil to moderately heavy chloritization; aphanitic; foliation at 45° to C.A.; andesitic matrix chloritized; felsic, non chloritized, RHY. Lapilli 3-7 mm; parts of unit very siliceous with siliceous matrix (like following unit) and chloritized blebs & mafic blebs. Micro aggl. to Macro aggl. with well defined andesitic matrix at 88.0 - 113.0; moderately packed.  74.0 - 77.5 INTERMEDIATE DIKE (DIORITE ?) 2-3 mm, felsic euhedral to subhedral grains in chloritized ground mass. Speckled appearance. Medium grained. Grey to green and white.						
145.0	287.0	RHYOLITIC MICRO AGGLOMERATE White with some green blebs - greenish towards bottom and pinkish tinted zones; aphanitic with some fine grain lath like to rounded grains of mafics throughout unit (2-3%); very light chloritization (blebs) to moderate chloritization (with depth); Chloritized blebs throughout most of unit; lapilli 3-6 mm; very siliceous matrix; loosely packed aggl.; foliation at 45° to C.A. Unit gradationally becomes more chloritized (light to moderate) from 250.0 - 287.0; gradational lower contact. Pinkish tinted zones - 145.0 - 211.0 very light to nil; 211.0 - 220.0 light to moderate; 220.0 - 226.0 moderate, well developed deep pink colour; 232.5 - 235.0 moderate grading to light; 238.0 - 240.0 light to moderate. 240.0 - 244.5 very light to nil 247.5 - 249.0 light to moderate; and 250.5 - 286.0 very light to nil.  219.6 - 220.5 ACID DIKE: light to moderate chloritization; fine to medium grained; light grey green; very siliceous felsic euhedral grains not well defined, blurred speckled appearance; upper contact-ground; lower contact at 20° to C.A. 226.7 - 232.5 ACID DIKE: as at 219.6 - 220.5 Upper contact ground. Lower contact at 70° to C.A.						

FOOTAGE	DESCRIPTION	SAMPLE NO.	FOOTAGE			ASSAYS
			From	To	Length	
287.0	245.0 - 250.5 a bit carbonaceous rhyolite (DIKE?) chloritized blebs elongated parallel to foliation at 45° to C.A.					
338.0	<b>CHLORITIZED RHYOLITIC MICRO AGGLOMERATE</b> Aphanitic; gray to grayish green; moderate chloritization; Micro aggl. 1 leplill 3-7 mm; foliated at 45° to C.A. (moderate to weak); units as at 245.0 - 266.0 but more chloritized. 328.0 - 333.0 Chlor. carb. rhyolite zone (DIKE?)					
366.0	<b>CHLORITIZED RHYOLITIC COARSE TUFF TO MICRO AGGLOMERATE</b> Fine to medium grained; moderate to heavy chloritization; 3-7 mm leplill and 2-3 mm felsic grains; gradational upper contact, similar to previous unit but coarser texture tuffaceous; some brachiolite leaving angular fragments up to 50 mm; very cherty looking rock in minor zones lower in unit; also moderate to light chloritization lower in unit; gradational lower contact; some 2-4 mm. clear qtz. eyes throughout unit. sub-angular-angular FRAGMENT 363.7 - 363.9 sub-angular - angular fragments in siliceous & carbonaceous matrix. CARBOJACOUS MATRIX					
387.0	<b>FELSPAR PORPHYRY DIKE</b> 5-10 mm. Felspar euhedral phenoz. in chloritized green. Fine grained ground mass. Felspar > 95% of phenoz., moderate chloritization, siliceous. Upper contact gradational (366.0 - 369.0); lower contact ground; 50-60% phenocrysts, 40-50% ground mass.					
426.8	<b>CHLORITIZED RHYOLITIC COARSE TUFF TO MICRO AGGLOMERATE</b> As at 338.0 - 366.0; more micro aggl.; chloritization moderate to heavy; towards bottom of unit; 2-4 mm clear qtz. eyes; gray-green to light grayish green (some creamy white & pinkish tinted zones); leplill 2-6 mm; coarse texture; some py associated with chloritized blebs which are the main type of light chloritization from 407.0 - 426.8 (moderate to light chlor. with depth).					
477.0	<b>RHYOLITIC MICRO AGGLOMERATE</b> As at 145.0 - 287.0 but moderate chloritization at 438.0 - 467.0. lightly chloritized zones (blebs); coarse tuff texture in part, mainly micro agglomeratic with 3-7 mm leplill, subangular to sub-rounded; 2-3 mm clear qtz. eyes; loosely packed aggl. in siliceous tuffaceous matrix; foliation at 55° to C.A. Slight pinkish tint 456.0 - 477.0					
	<b>453.3 - 456.0 INTERMEDIATE DIKE</b> Grayish green; fine grained; 1% Py & Mt.					







FOOTAGE		DESCRIPTION	% Mineralization	SAMPLE NO.	FOOTAGE			ASSAYS
From	To				From	To	Length	
584.0 584.0	775.0 775.0	<p><b>RHYOLITIC MICRO AGGLOMERATE</b> (Some Macro &amp; Chloritization)</p> <p>Chloritization moderate to very light; in part, some andesitic matrix with large feldspar (Kfz, ) lapilli, up to 30 mm. Some minor brachiolite with chloritized (Andesitic?) matrix, grey white to light grey green (more chloritized or andesitic?) matrix, pinkish tint. Similar to previous unit but less chloritization and good siliceous rhyolitic zones with chloritized blebs; fine grained. Some medium to coarse texture; 3-7 mm lapilli mainly. Some minor macro agglomerate zones scattered through unit as at 68.0 - 113.0 in andesitic matrix, up to 60 mm. Lapilli - (Kfz, ) Micro aggl. fragments isolated intruding andesite or andesite filling a breccia (see 7); some tuffaceous Kfz. Matrix with gla. eyes &amp; chloritized lapilli lower in unit. Some 4-7 mm lapilli (up to 15 mm); subrounded to rounded; 638.6 - 644.0; lapilli up to 30 mm in Chlor. (andesitic) matrix; foliation at 60° to C.A.</p> <p>Pinkish tint intermittent. Light to moderately heavy. (Microstriae iron staining?) 705.0 - 713.0 moderately heavy tint with very siliceous rhyolite; 764.0 - 766.0 moderate pinkish tint; 769.0 - 773.0 moderate to moderately heavy pinkish tint.</p> <p>Pinkish tint is light to moderate from about 660.0 - 775.0. (Up to 660.0 it was nil to light).</p> <p>Unit is homogeneous with minor variations and with a chloritized to unchloritized siliceous matrix and numerous intermediate (andesitic) and intermediate to acidic (DAGITIC) dikes.</p> <p>598.0 - 599.0 INTERMEDIATE DIKE (ANDESITIC - DAGITIC) As at 560.7 - 562.0; chilled margins not as dark. More siliceous upper contact at 65° to C.A.; lower contact ground. Fine grained. No speckled appearance - feldspar indistinct.</p> <p>621.5 - 624.0 INTERMEDIATE TO ACIDIC DIKE (DAGITIC) As at 598.0 - 599.0. Some foliation at 70° to C.A. Tuffaceous chilled margins. Upper contact at 60°. Lower ground. Top contact of this dike is very fine gr. with elongated grains (clear, whitish, &amp; chloritic) salvaged rim of a pillow?</p> <p>662.0 - 663.6 INTERMEDIATE TO ACIDIC DIKE: As at 621.5 - 624.0. Ground upper contact, lower at 60° in part ground. 660.8 - 660.9; 663.9 - 664.1; 664.6 - 664.7; 665.0 - 665.3; 665.9 - 666.2 &amp; 667.6 - 667.8 are small dikes like at 662.0 - 663.6 with intact contacts at 60° to C.A.</p>						

U.S. GEOLOGICAL SURVEY  
 EXPLORATION DIVISION, D.D.N. RECORD

PROPERTY: *772. Aven "B"* Map No. *51-18-75/42*

FOOTAGE	DESCRIPTION	% Micaceous	SAMPLE NO.	FOOTAGE			ASSAYS	
				From	To	Length		
	666.4 - 670.1 INT. REFINED INK. As at 560.7 - 562.0. Upper contact at 60'. Lower contact ground.							
	671.8 - 674.3 Int. to Acid DIKE as at 662.0 - 663.6. Contacts at 60° to C.A. more chloritized darker in middle (as at 668.4 - 670.1).							
	675.6 - 676.8 Int. to Acid DIKE as at 662.0 - 663.6. Some darker part; upper contacts at 70° to C.A. Lower contact at 60° to C.A. Similar small dike at 677.5 - 677.8 contacts at 60°; 684.6 - 685.0 upper contact at 65° to C.A. Lower ground.							
	685.8 - 687.2 INT. INK. as at 560.7 - 562.0. Some speckled appearance. Contacts ground.							
	689.0 - 692.0 INT. to ACID DIKE as at 662.0 - 663.6. Ground contacts. Lower at 60° to C.A. In part.							
	719.8 - 720.3 INT. to ACID DIKE as at 662.0 - 663.6. Ground contacts.							
775.0	END OF HOLE							

MATTABANI LAKE MINES LIMITED - EXPLORATION DIVISION - DIAMOND DRILL HOLE RECORD

PROPERTY Sturgeon Lake  
 Block "7" Area "15"  
 HOLE NO. 81-15-93/44  
 DIPPING Grid South (170°)  
 P-COLLAR -60°

LATITUDE 166 4 25 N  
 DEPARTURE 34 4 00 E  
 ELEVATION Surface (Lake)  
 SECTION 34 4 00 E

STARTED January 31, 1973  
 FINISHED February 5, 1973  
 LENGTH 747.0'  
 LOGGED BY I. Stephenson

FOOTAGE		CORRECTED		DIP TEST	
FOOTAGE	CORRECTED	FOOTAGE	CORRECTED	FOOTAGE	CORRECTED
100'	60°	400'	54°	700'	39°
200'	56°	500'	45°		
300'	55°	600'	42 1/2°		

From FOOTAGE	To FOOTAGE
0.0	60.0
60.0	492.0
492.0	550.0

DESCRIPTION  
 CASING  
 (Bedrock at 45'. Vertical Water Depth, 34')

**RHYOLITIC MICRO AGGLOMERATE**  
 (Tuffaceous in Part)  
 Like RHYOLITES of hole 15-73/42; Chloritization - moderate to nil; Carbonatization - moderate to heavy; pinkish colouring (stain? or alteration?) nil to moderate.  
 Lapsilli 3-10 mm, some very carbonaceous. Subrounded, (mainly around 160.0 - 200.0); chloritization in blebs and as part of matrix; carbonatization mainly in matrix; aphanitic; grey to off white with greenish (chloritized) and pinkish coloured zones; foliation at 35° to C. A.; very siliceous (cherty); tuffaceous matrix and zones; loosely to moderately packed agglomerate; few distinct qtz. eyes; Unit homogeneous with minor variations (colour & chloritization & carbonatization) Some minor qtz. carb. filled breccia blebs & cracks.  
 Fine gr.: subrounded to lath-like masses 2-3% mainly found after 250.0'.  
 Pinkish tint throughout unit, very few zones without it. Chloritized & carbonatized and pinkish zones intermixed, 76.4 - 79.4 Rusty stained zone.  
 354.9 - 355.0 1/2" Qtz. carb. stringer with 3-4% cp.  
 430.0 - 446.0 More carbonaceous zone.  
 446.0 - 492.0 Unit loses pinkish tint. Distinct 2-3 mm qtz. eyes, creamy white RHY. Very tuffaceous cherty.  
 471.0 - 472.2 light to moderate chloritization with 1-2% Py, Po, Tr? Cp, Sph.  
 474.5 - 477.5 as at 471.0 - 472.2 1-2% Py, Po

**RHYOLITIC MACRO AGGLOMERATE**  
 446.0 - 492.0 (Breccia?)  
 As at 446.0 - 492.0 of previous unit; grey to creamy white; fine gr. to aphanitic with lapsilli (fragments?), subangular; 5 mm up to 75 mm; siliceous & carbonaceous matrix; in part chloritized (moderately); brecciated micro aggl. ?; very tuffaceous in part; some fragments appear to be micro aggl.; very carbonaceous - moderate to heavy; gradational contacts.

SAMPLE NO.	FOOTAGE			ASSAYS				
	From	To	Length	Au	Ag	Zn	Cu	Pb
38682	349.5	354.5	5.0	Nil				
38683	354.5	355.5	1.0		nil	nil	nil	nil
38684	355.5	360.5	5.5		nil	nil	.03	nil
38685	466.0	471.0	5.0	Nil		nil	nil	
38686	471.0	472.2	1.2		nil	nil	nil	
38687	472.2	475.0	2.8		nil	nil	nil	
38688	475.0	477.0	2.0		nil	nil	nil	
38689	477.0	482.0	5.0		nil	nil	nil	





MATTAGAMI LAKE MINES LIMITED - EXPLORATION DIVISION - DIAMOND DRILL HOLE RECORD

PROPERTY Sibirgeon Lake AREA 15  
Block 114 Aven 1154  
L.R. NO. SL-18-75-55  
BEARING Grid South  
DIP-COLLAR 50° 60°

LATITUDE 164 100 N  
284 00 N  
DEPARTURE 41 100 E  
41 100 E  
ELEVATION LAKE SURFACE  
LAKE SURFACE  
SECTION

STARTED MARCH 15, 1973  
MARCH 25, 1973  
FINISHED MARCH 30, 1973  
MARCH 30, 1973  
LENGTH 1222.0'  
1222.0'  
LOGGED BY K. Hume K. Hume

Postage	Collected	DIP TEST	Postage	Collected	Postage	Collected
100 100	86° 56'		1000	251° 25'		
200 200	52° 52'	700	1000	251° 25'		
300 300	48° 48'	800	1100	24° 24'		
400 400	43° 43'		1200	23° 23'		
500 500	37° 37'		1200	23° 23'		
600 600	31° 31'	900	1200	23° 23'		

From	To	DESCRIPTION	SAMPLE NO.	% Mineralization	FOOTAGE			ASSAYS	
					From	To	Length		
0	68.0	<b>CASINO</b> (The track of 68.0') Water depth 8.0' Vert.							
68.0	125.5	<b>RHYOLITE TUFF</b> White to light gray, siliceous. Coarse tuffaceous with fragments up to 4 mm, siliceous, white, and flattened parallel to the schistosity at 62° to 60° to C.A. and closely packed. Schistosity at 62° to C.A. and closely packed.							
125.0	254.5	<b>RHYODACITE TUFF (CHL. RHY. T)</b> Gray to dark greenish gray. Same texture as in the above with but moderately chloritized. Coarse tuff with the occasional fragment 10-20 mm, gray, siliceous and flattened parallel to the schistosity at 50° to C.A. Occasional pinkish section which appears rhyolitic. Agglomeratic unit at 236.0 - 236.0 with dark gray siliceous fragments moderately packed. With inter. gray siliceous fragments moderately packed.							
254.5	425.0	<b>RHYOLITE TUFF TO MACRO AGGLOMERATE</b> Pinkish white to gray, siliceous. Coarse tuff with fragments 2-4 mm, moderately packed, angular to subangular with occasional fragment 10-20 mm. Agglomeratic section at 308.0 - 310.0 with large fragments 20-80 mm set in a pinkish gray matrix. Schistosity at 85° to C.A.  Intermediate dike: At 270.0 - 275.0 - green, fine grained. Contacts at 45° to C.A.  Intermediate dike: At 298.0 - 297.0 - green to dark green. Fine grained. Contacts 40° to C.A.  Intermediate dike: At 303.0 - 304.3 - green. Contacts at 90° to C.A. Fine grained at contacts and medium grained center.  Intermediate dike: At 343.0 - 366.5 - green. Contacts at 90° to C.A.  Ground Cores: 268.0 - 269.0, 271.0 - 273.0.							

U.I.B. EXPLORATION DIVISION, D.D.H. RECORD

PROPERTY: **Chagson Lake**  
**Block #7, Area #15** HOLE NO. **6E-18-73-55** Page **2**

FOOTAGE		DESCRIPTION	MINERALIZATION	SAMPLE NO.	FOOTAGE			ASSAYS	
From	To				From	To	Length		
425.0	521.3	<b>RHYODACITIC MACRO AGGLOMERATE (CHI., RHY.)</b> Dark greenish gray. Fragments are gray. Siliceous and range in size from 10 to >30 mm. Moderately packed to tightly packed in a Rhyodacitic Matrix. Matrix is grayish green with slight to moderate chloritization. Occasional fragment is dark green, 2-4 inches wide and subrounded. Trace specks of magnetite. Numerous andesitic dikes at 487.8 - 488.0, 495.0 - 496.0, 509.4 - 510.0, 520.0 - 521.3 which are dark green. Sharp contacts and contain subhedral pyrite crystals.							
521.3	643.0	<b>RHYODACITIC TUFF/FLOW (CHI., RHY. ?)</b> Dark greenish gray. Moderately chloritized. Bracciated at 937.0 - 560.0 with pink quartz veins surrounding angular fragments. 1-2% quartz eyes (no blue tint).							
643.0	836.0	<b>RHYODACITIC MACRO AGGLOMERATE (CHI., RHY.)</b> Grey and pinkish white fragments (2-6 inches), subrounded, loosely packed, and set in a dacitic to andesitic matrix. Matrix moderately chloritized with pink fragments 2-4 mm which may be garnets. Minor banding at 70° to C.A. Trace magnetite.							
836.0	939.7	<b>RHYODACITIC MICRO AGGLOMERATE</b> Dark greenish grey. Moderately chl. Fragments are grey, siliceous, 5-30 mm, moderate to tightly packed. Schistosity at 80° to C.A. Matrix Dacitic. Numerous quartz eyes 2-4 mm in diameter. Rhyolitic section from 912.0 - 939.0 with occasional mafic fragment.							
939.7	1039.0	<b>RHYODACITIC FLOW</b> Dark grey with a purplish tint. Massive. Numerous amygdaloes 2-8 mm in diameter. Occasional rectangular feldspar crystal 3-4 mm. Mafic dtyg at 952.8 - 955.3. Rhyolitic from 971.0 - 1039.0 with the same texture.							
1039.0	1175.0	<b>RHYOLITE MACRO AGGLOMERATE</b> Grey to creamy white. Fragments are light grey to dark grey. Siliceous, subangular, 25- >60 mm and set in a grey matrix which contains smaller yellowish white fragments 2-5 mm. Angular shreds at 1039.0 - 1050.0, 2-15 mm grading into macro agglomerates. Creamy white at 1077.0 - 1102.0 with cherty Rhyolite bands and appears to be a welded agglomerate with large siliceous fragments set in a creamy white cherty matrix. Minor banding at 75° to C.A. Trace Py-Po.							







WATYACANI LAKE MINES LIMITED - EXPLORATION DIVISION - DIAMOND DRILL HOLE RECORD

PROPERTY: Surgeon Lake Block "7", Area "15"  
 HOLE NO.: SL-15-74/61  
 BEARING: Grid South  
 DIP-COLLAR: -75°

LATITUDE: 147 1 00 N  
 DEPARTURE: 34 4 00 E  
 ELEVATION: Surface (Surgeon Lake)  
 SECTION: 34 4 00 E; 34 4 00 E

STARTED: January 21, 1974  
 FINISHED: March 14, 1974  
 LENGTH: 2916.0  
 LOGGED BY: A. O. TENHATTEN  
 I. Stephenson

At 2500' - 14° S 12° 30' W  
 Wedged at 200', 551', 780'

FOOTAGE		DESCRIPTION
From	To	
0.0	204.0	See Log of Hole SL-15-74/61-W
0.0	204.0	
204.0	228.5	<b>RHYOLITE MICRO AGGLOMERATE</b> As at 129.0 - 217.0 in SL-15-74/61-W. As at 124.0 - 217.0 in SL-15-74/61-W.
228.5	279.0	<b>RHYOLITE TUFF</b> As at 217.0 - 279.0 in SL-15-74/61-W. Shearing at 45° to C.A. Moderately carb. & chlor. in part.
279.0	403.0	<b>DACITE TUFF</b> As at 279.0 - 403.0 gradually more chlor. Massive, homogeneous, INTRUSIVE?
403.0	456.0	<b>ANDESITE FLOW</b> Green; fine grained, 5-8 mm, qtz. carb. filled amygdolae. As at 403.0 - 475.0 in SL-15-74/61-W. More tuffaceous. Fewer amygdolae with depth; gradational lower contact.
456.0	697.0	<b>ANDESITE FLOW/TUFF (INTRUSIVE?)</b> Fine to medium grained; green with white specks - 1-2 mm felsic phenocrysts; intrusive appearance. Massive, homogeneous unit.
697.0	1034.3	<b>ANDESITE FLOW</b> As at 405.0 - 456.0, 3-15 mm amygdolae; some light green carb. & ellip. zones with minor cherting & minor breccia. 1031.0 - 1034.3 some rhyolite fragments mixed with andesite flow, mixed contact zone. GROUND CORES: 847.0 - 850.0, 865.0 - 867.0.
1034.3	1040.5	<b>GRAPHITE TUFF</b> Black, aphinitic, bedded at 80° to C.A. 1-2% pt stringers & blebs (11, py). GROUND CORES: 1037.0 - 1040.0.

Footage	Corrected	DIP TEST		Corrected	Footage	Corrected
		Footage	Length			
100' 72°	560' 58°	1100'	48°	1700' 33°		
200' 68°	600' 57°	1200'	45°	1800' 29°		
300' 65°	700' 56°	1300'	45°	1900' 24°		
400' 61°	800' 56°	1400'	41°	2100' 20°		
500'	900' 54°	1500'	39°	2200' 18°		
551' 57°	1000' 51°	1600'	47°	2300' 16°		

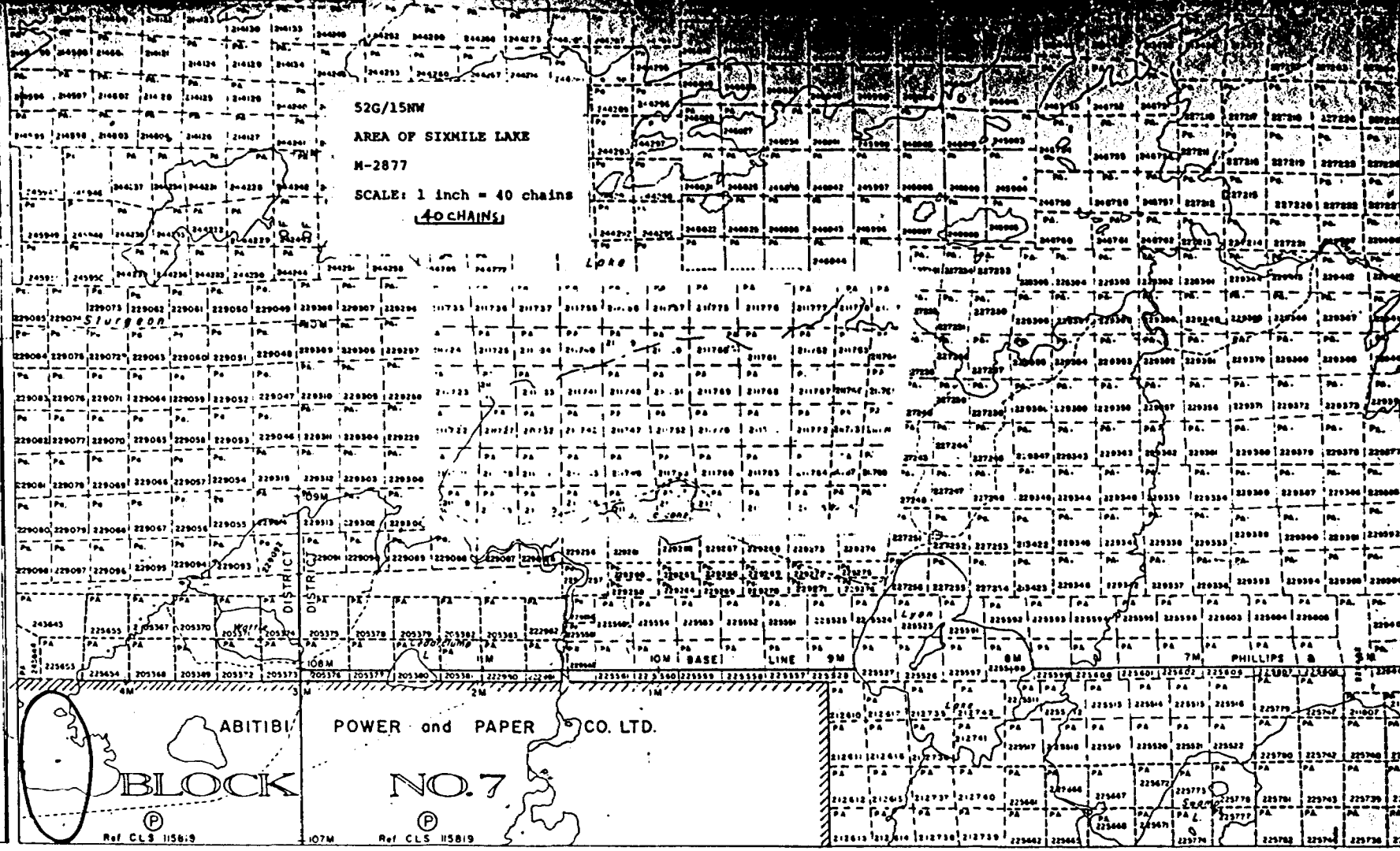
  

SAMPLE NO.	FOOTAGE		Length	ASSAYS	
	From	To		Dip	Tests
				2400'	51°
				2500'	50°
				2600'	50°
				2700'	50°
				2800'	40°









52G/15NW

AREA OF SIXMILE LAKE

M-2877

SCALE: 1 inch = 40 chains  
40 CHAINS

229075 229082 229081 229080 229089 229088 229087 229086

Surgeon

DISTRICT  
DITM

ABITIBI  
BLOCK

POWER and PAPER CO. LTD.

NO. 7

Ref CLS 1158:9

Ref CLS 1158:9

91°00' 59' 58' 57' 56' 55' 54' 53' 52' 51' 50'