

41P15NE8329 16 CAIRO

Diamond Drilling

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Township CAIRO

Report NO 16

Work performed by: COMSTATE RESOURCES LTD.

Claim NQ	Hole NQ	Footage	Date	NOte
L 650116	C-1	593'	May/84	. (1)
L 757833	C-2	200'	May/84	(1)
L 757834	C-3	203'	May/84	(2)

Notes: (1) #141 - 85

(2) #140 - 85



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MINISTRY OF NATURAL RESOURCES **RECEIVED**

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THE DIRECTOR Minute Examine & Outer Unice

REPORT

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on the

Diamond Drill Program

for

GRAND SAGUENAY MINES AND MINERALS LIMITED

Cairo Township

Matachewan Area Larder Lake Mining Division, Ontario

by

Nadia Caira, B. Sc.

Robert S. Middleton Exploration Services Inc. P.O. Box 1637 Timnins, Ontario P4N 7W8 November, 1985



41P15NE8329 16 CAIRO

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. TABLE OF CONTENTS

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DDH C-1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	1
DDH C-2	•	•	•	•	•	•	•	•	٠	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	2
DDH C-3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	2
SUMMARY	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	2

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INTRODUCTION

A diamond drill program consisting of three "BQ" diamond drill holes totalling 996 feet was conducted on the property optioned to Grand Saguenay Mines and Minerals Limited from Comstate Resources Limited. Drilling commenced May 12, 1984 and was completed on May 21, 1984. The Property is located in southern Cairo Township, and is traversed by Highway 66 connecting Matachewan to the Trans-Canada Highway No. 11, approximately 20 miles to the east.

The drilling program by Grand Saguenay was to test IP anomalies. The diamond drilling was carried out by Norex Drilling Limited of Porcupine, Ontario. Drill core was logged and sampled by Roberta Bald, B.Sc., M.Sc. of Robert S. Middleton Exploration Services Inc., Timmins, Ontario.

DDH C-1

Hole Depth	593 feet
Azimuth	330°
Dip	-45°
Location	LO, 6+00'S
Claim Number	L650116

This hole intersected mafic metavolcanics and gabbros as well as a series of associated interflow chemical sediments (cherts). The chert zones were sulphidic and are associated with adjoining carbonate zones containing disseminated pyrite and green mica. Although mineralized core was extensively sampled (107 samples) the highest gold value obtained was only very weakly geochemically anomalous (69 ppb Au).

DDH C-2

Hole Depth	200 feet	t
Azimuth	330°	
Dip	-45°	
Location	5+32'N,	13+75'E
Claim Number	L757833	

This hole intersected mafic syenite and gabbro for its entire length. Some disseminated pyrite and hematitic zones were noted and sampled (5 samples), but these zones failed to return anomalous gold values.

DDH C-3

Hole Depth	203 feet
Azimuth	315
Dip	-45
Location	4+07'E, 6+75'N
Claim Number	L757834

This hole intersected porphyritic syenite and metasedimentary rocks. A minor amount of disseminated pyrite was noted and sampled (15 samples) but failed to return anomalous gold values.

SUMMARY

Given the lack of significant gold assays and the fact that

- 2 -



the best IP anomalies were tested, no further work is recommended at this time.

Respectfully Submitted,

Madia (ana Nadia Caira, B. Sc.

ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

DIAMOND DRILL HOLE LOG

PROJECT:	M-18, GRAND SAGUENAY MINES & MINERALS LTD.	HOLE NUMBER:	C-1
AREA:	CAIRO TOWNSHIP, MATACHEWAN AREA	LOCATION:	LO, 6 + 00S
CLAIM NUMBER:	L650116	AZIMUTH:	330° AZ
CORE SIZE:	BQ	DIP:	-45°
DRILLED BY:	NOREX DRILLING	DATE:	MAY 12 TO 17, 1984
LOGGED BY:	ROBERTA BALD	CASING:	91
CORE STORED AT:	NOREX DRILLING WAREHOUSE PORCUPINE, ONTARIO	LENGTH:	593'
OBJECTIVE:	TO TEST I.P. ANOMALY OVER SULPHIDE FACIES IRON FORMATION	ACID TESTS:	@ 200' = -43° @ 400' = -39.5° @ 593' = -39.5°

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Roberta Bald

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ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

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DIAMOND DRILL HOLE LOG

Project <u>Cairo - M-18</u>

Hole No. 1 Page 1 of 9

Footage		ROCK TYPE AND DESCRIPTION	Core	7.		SAMPLE			Analyt	esult	
From	То		Angle to Axis	Sul- phides	Number	From	То	Length (feet)	Au ppb	Au oz/t	
	0	CASING (CASING IN TO 121)									
0	9	CASING (CASING IN 10 12)									
9	~30	MAFIC METAVOLCANIC						1.			
		-broken core from 9' to 14.5'; 17' to 30' including ground core from 22.5' to 25' (2.5')									
		-from 9' to ~11': boulders including one medium-to coarse-grained magnetic diabase boulder greater than 1 foot in diameter.									
		-mafic metavolcanic is greenish grey, fine-grained to medium-grained with local slight carbonatization and silicification in patches; locally up ~2% fine-grained pyrite as patches of disseminated crystals and blebs.		2%					×.		
30'	114"	SULPHIDE FACIES IRON FORMATION							}		
		-dark green to dark brown mafic component, magnetic, locally containing up to ~15% pyrite as either dissemin- ated crystals and blebs <u>or</u> as subparallel stringers <u>or</u> as massive crystal aggregates (commonly appear brecciated);		15%							
		-cherty siliceous component (up to ~5-10% of rock); light grey to milky white, commonly appears brecciated locally contains bright green veinlets and patches (up to ~2%) of possible chlorite?; locally cherty material contains pyrite as stringers in between cherty "fragments".									
		-iron formation unit cut by up to -5 to 10% carbon- ate \pm quartz veinlets and veins up to $-1/2$ " wide.	-								
		-@47.5': possible bedding of magnetic mafic compon-									

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DIAMOND DRILL HOLE LOG

Project <u>Cairo - M-18</u>

Hole No. 1 Page 2 of 9

Foot	age	ROCK TYPE AND DESCRIPTION	AND DESCRIPTION Core Z SAMPLE A						Analyt	ical R	esult
			Angle	Sul-				Length	Au	Au	
From	To		to Axis	phides	Number	From	To	(feet)	ррЪ	oz/t	
}])			
30'	114'	ent and cherty siliceous component; cherty beds ~ 1/2"									
) (conti	inued)	wide with intervening ~1" wide mafic bed; cherty beds))			}			
	1	are faulted, lensoid; beds at ~25° to core axis.	25						0		
	{ }	@ 54.0': bedding @ 35' to core axis.	35"							{	{ }
[0.58.0': bedding $0.35''$ to core axis.	35*								
{	{ {	\emptyset 66.0': bedding \emptyset 20° to core axis.	20*	{	{			{		{	{ {
		(80.0': bedding (20') to core axis.	20								.
{	{ {	(82.0): bedding (25) to core axis.	25*	{	{	{ {				{	1 1
{		(bliv i bouding (15 to tore anis)	25	{							{ {
{	{ {	0.66.0!: an ~1/2" bed of massive pyrite has segreg-		{		{ {		{	{	{	1 1
1		ated into elliptical shaped bodies ~1/4" long on up-bole									
{	{ {	side of pyrite bed (concretions?).		{ . 1	{	{ {		{		{	1 1
					41968	73.01	75 01	2.01			
{	{ {	\emptyset 75' to 76.9': up to 80% pyrite as thin (less than		807	41969	75.0'	76.91	1.91	}	{	{ }
		1/10" wide) beds and "concretions" between magnetite-		00%	41970	76 91	79.01	2 1			
{	{ {	rich mafic material.		{	41970	79 01	82 01	3.01		{	1 1
					41571	//	02.00	5.0			
1	{ }	@ 90.0': hedding @ 25' to core axis.	25*	{	{	{ }		{		}	
Į		(92.0!); bedding (20) ; to core axis.	20%								
{ .		e yzer : bedding e zou to core axist	2017								
	{ }	@ 95': graphite along bedding? planes @ ~25% to core	257	{	41972	94.01	95.71	1 71		1	
		axis: 3' of ground core from 97' to 100'.			41772	54.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.,			
{	{ {	unity, 5 of glound core from 57 to 100 t		{	{	{ }		{			
		@ 113': bedding @ 35" to core axis.	35		41973	112'	114'	21			
{	1 1			{			▲ ▲ - •	-		{	
		-lower contact obscured by broken core.			41974	1141	117'	31			
{	1 1	iower concace observe by broken core.		{	417/4		117		1	· · ·	{ }
114'	205.11	GABBRO									{ }
				{	{	{ }		1.		1	{ }
		-possibly medium-grained mafic metavolcanic								Į	
	{ {	Loogent' modern Proting marks menalogiation		(1	{ }		{	ł	{	
		-greenish grey, medium-grained carbonatized.							1	ł	
	1	massive: with locally up to "5% discrete white carbonate			{	{ }			1	{	
{ ·		crystals (calcita): with up to "3% white (chalky) calcita									
{	1	cijstalo (calcice), with up to sw white (thatky) calcite		{	{	{ }		1	{	{	
										1	
	{ }			{	{	{ {		{	ł	1	
1	1 1		I	1	1	1 1		1	1	I	1 1

Project <u>Cairo - M-18</u>

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DIAMOND DRILL HOLE LOG

Hole No. 1 Page 3 of 9

Foota	age	ROCK TYPE AND DESCRIPTION	Core	1%		SAMPLE	Analyt	esult			
			Angle	Sul-				Length	Au	Au	
From	То	、、	to Axis	phides	Number	From	To	(feet)	ppb ·	oz/t_	
From 114' (cont	To 205.1' inued)	<pre>veinlets up to ~1/5" wide, randomly oriented; locally showing small-scale folding and faulting; locally calcite veinlets cross-cut each other. -locally contains up to ~3% fine-grained dissemin- ated pyrite (e.g. @ 122'). -local milky white to translucent quartz veins cut- ting strongly carbonatized light grey host rock (host rock is strongly carbonatized within ~2-3" of vein) (e.g. @ 162': ~1/2" wide quartz + minor calcite vein @ ~20° to core axis, with up to ~2% fine-to coarse-grained pyrite in host rock along vein margin. -carbonatized, bleached zone containing ~1% fine- grained discominated awrite from 100 51 to 102 01</pre>	20°	2%	Number 41975 41976 41977 41978 41978 41979 41980 41981	From 117' 120.9' 123.0' 159.5' 161.5' 163.0' 188.5'	To 120.9' 123.0' 125.0' 161.5' 163.0' 165.0' 190.5'	(feet) 3.9' 2.1' 2.0' 1.5' 2.0' 2.0' 2.0'	ррЪ	oz/t_	
205.1'	208.9'	<pre>grained disseminated pyrite from 190.5' to 192.0'. -@ 195.7': carbonate veinlet in light grey carbon- atized host rock, containing up to ~2% disseminated fine to coarse-grained pyrite. Note: blocky core throughout hole -lower contact gradational into next unit. CHERTY CHEMICAL METASEDIMENT -similar to cherty-siliceous portion of sulphide facies iron formation. -from 205.1' to 206.5': cherty material is brec- ciated, with mafic material between fragments. -unit locally contains up to ~4% medium-grained pyrite as stringers and filling spaces between cherty</pre>		27	41982 41983 41984 41985 41985 41986 41987	190.5' 192.0' 195.0' 196.0' 205.1' 207.0'	192.0' 195.0' 196.0' 197.9' 207.0' 208.9'	1.5' 3.0' 1.0' 1.9' 1.9'			

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N EXPLORATION DIAMOND DRILL HOLE LOG Project <u>Cairo - M-18</u>

Hole No. 1 Page 4 of 9

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DIAMOND DRILL HOLE LOG

Project <u>Cairo - M-18</u>

Hole No. <u>1</u> Page <u>5</u> of <u>9</u>

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Foota	age	ROCK TYPE AND DESCRIPTION	Core	1%		SAMPLE					Analytical Result				
From	То		Angle to Axis	Sul-	Number	From	То	Length	Au	Au					
				IP		1.0m	10		1 990	102/1	<u>├</u> †				
246'	265.1'	GABBRO (?) OR ALTERED MAFIC METAVOLCANIC?							}						
		-medium-grained, mottled texture; carbonatized, greenish grey, massive; locally up to ~15% white calcite <u>+</u> quartz veins, random.													
		-from 246.0' to ~248.0': silicified, possible fault zone?, green to light greenish buff coloured, aphanitic to schistose, with small dark-green specs; locally con- tains~1% fine-grained disseminated pyrite; up to ~2% local grey, translucent veins up to ~1/4" wide.		1%	41991 41992 41993 41994	246.0' 248.1' 251.0' 253.0'	248.1' 251.0' 253.0' 255.0'	2.1' 2.9' 2.0' 2.0'							
					41995	259.5'	261.3'	1.8']		ŀ				
		-lower contact @ 30° to core axis.	30*		41996 41997	261.3'	262.3	2.7							
265.1	~268.5'	FAULT ZONE													
		-exact length unknown since core broken into small pieces from 266.3', stretching for ~2 feet in core box.			41998	265.0'	266.3'	1.3'							
		-very soft, grey to dark grey mafic material, locally schistose and locally brecciated; with carbonate and quartz veinlets and veins from ~ 265.3 to 266.3' (~80% of rock).									-				
268.5'	384.6'	VARIOLITIC PILLOWED MAFIC METAVOLCANIC													
		-dark grey to greenish grey, soft, chlorite-rich, fine-grained, with zones of white-buff round varioles (locally zoned) up to 1/2" diameter but more commonly ~1/8" diameter.													
		-several bleached, hard silicified sections through- out unit; from buff to greenish buff to bright green; locally containing up to 2% white calcite randomly			41999 42000 43706	268.5' 270.5' 273.0'	270.5' 273.0' 275.0'	2.0' 2.5' 2.5'							

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DIAMOND DRILL HOLE LOG

Project <u>Cairo - M-18</u>

Hole No. 1 Page 6 of 9

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Foot	age	ROCK TYPE AND DESCRIPTION	Core	7.	-	SAMPLE			Analyt	ical R	esult	7
			Angle	Sul-				Length	Au	Au		
From	То		to Axis	phides	Number	From	To	(feet)	ppb	oz/t		
								}	1	1	1	
268.5	384.6'	oriented veinlets & veins; bleached zones are generally	6"	ground	43707	275.0'	278.0'	2.5'				
) (conti	inued)	almost cherty looking (aphanitic) with dark green to) co	re	43708	278.0'	280.0	2.0	}	1	1	
		locally bright green chlorite crystals/specs dissemin-			43709	280.0	282.0'	2.0	1		1	
}	}	ated in matrix; these zones locally contain ~1% fine-		1%				}		}		
		grained disseminated pyrite; the zones occur from			43/10	28/.01	288.5	1.5'			•	
}	}	² 268.5; (end of fault zone) to 282'; 28/' to 290.3';		} .	43/11	288.5	290.3	1.8)		
		294.5' to 295.5'; 300' to 313.2'; 316.6' to 317';								1	1	ļ
	}	319.3' to 321.1'; 322./' to 328.1'; 334.8' to 339';		} .	(07.0				}	}	Į	
		342.1' to 346.8'.			43712	294.5	295.5'	1.0	1	1		
}	}		}	}	10710	200 01	202.01		}	}	}	
ł					43/13	300.01	302.0	2.0			ł	
	}		}		43/14	302.0	304.0	2.0	}	ł	}	1
					43/15	304.0	308.0	2.0		ł	ł	
}	}				43/10	300.0	308.0	2.0	1	ł	}	
					43/1/	308.0	310.0	2.0				
}	}			}	43/10	310.0	312.0		}	ł	}	ł
					43719	312.0	313.2	1.2	1			ł
					43720	319.3'	321.1'	1.8'		{	}	
			}								[1
					43721	322.7'	324.7'	2.0'	[[[
]]]	43722	324.7'	326.7'	2.0'			[I
					43723	326.7'	328.1'	1.4'	{			1
					43724	328.1'	328.7'	0.6'		1	l	I
					43725	328.7'	329.9'	1.2'				
	}			}	43726	334.81	337 01	2.21	}	} .	}	
					43727	337.01	339.01	2.01				
	{		}	{	43728	339 01	342 11	3.11	1	1	ł	
					43729	342.1	344.0'	1.91	1			
f .	{				43730	344.0'	346-8'	2.81	}	{	1	ł
					70100	344.0	34080				{	
{	1 1	-locally varioles are present within altered zones:	{	{		{ }		{	{	{	{	
		also possible pillow margins (i.e. chlorite. quartz and									{	
({	carbonate rich arcuate zones).	ł	1 1		{ {		1	{	ł	{	
ł			1						ł	1	{	ł
{	{		{	1 1		{ }		{	{	{	{ ``	l
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DIAMOND DRILL HOLE LOG

Project <u>Cairo - M-18</u>

Hole No. <u>1</u> Page <u>7</u> of <u>9</u>

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Foota	ge	ROCK TYPE AND DESCRIPTION	Core	%		SAMPLE		· · · · ·	Analyt	ical R	esult
From	То		Angle	Sul-	Number	From	То	Length	Au	Au	
FIOM	10		LU AXIS	plindes	Number	FIOШ	10				
268.5'	384.6'	-@ 328.7' to 329.9': schistose; carbonate (calcite) veinlets sub parallel to foliation; and buff coloured siliceous veinlets, deformed; with up to ~2% bright green chlorite? or fuchsite? along schistosity planes,		19							
		associated with 1% line-grained pyrite.		1/6							
		-locally within unit <1% fine-to medium-grained, chalcopyrite @ ~335.5' and 336.5' and 340', associated with calcite veinlets & patches.		<1% cp							
		-locally within unit, up to ~50% buff coloured, hard siliceous veinlets making net pattern causing a pseudo fragmental texture (host rock "pseudo-fragments" have shard-like shapes).									
		-bleached silicified zones similar to 268.5' to 282', etc. @ 348.3' to 349.5': 356' to 360' including			43731	348.3'	349.5'	1.2'			
]		grey-buff silicified zone with patches of dark, grey-	}		43732	356.0'	358.0'	2.0'	ļ	}	
		black cherty material from ~358.5' to 360'; 361' to 362 9' including a section similar to 328 7 to 329 9'.			43733	358.0'	360.0'	2.0'			
		366.8' to 368.3' including two zones of quartz veining ~2" wide; 376' to 382.5'.			43735	361.0'	362.9'	1.9'			
					43736	366.8'	368.3'	1.5'			
		-lower contact obscured by broken core.			43737 43738 43739	376.0' 378.0' 380.5'	378.0' 380.5' 382.5'	2.0' 2.5' 2.0'			-
384.6'	563.9'	GRAPHITIC MAFIC METAVOLCANIC FLOWS			62760	207 21	200 11	0.81			
	r I	massive mafic volcanic flows, locally variolitic (@ 401' to 404'): strongly carbonatized (reacts to HCl). with up			43741	388.1'	389.7'	1.6'			
		to "20% graphite along possible pillow margins (?			43742	396.5'	398.5'	2.0'			

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DIAMOND DRILL HOLE LOG

Project <u>Cairo - M-18</u>

Hole No. <u>1</u> Page <u>8</u> of <u>9</u>

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Foota	ige	ROCK TYPE AND DESCRIPTION	Core	%		SAMPLE			Analyt	ical Re	esult
From	To		Angle to Axis	Sul- phides	Number	From	То	Length	Au ppb	Au oz/t	
384.6' (cont	563.9' inued)	arcuate zones) and between "fragments" of mafic volcanic (in situ brecciation?); unit contains up to ~10% white calcite veinlets and veins up to 3/4" wide, random to roughly subparallel @ 40-45° to core axis; up to ~2% fine-to coarse-grained pyrite, usually associated with graphite between "fragments".	45°	2%	43743 43744 43745 43746 43747	419.3' 425.0' 450.7' 471.0' 479.9'	421.3' 426.5' 452.7' 473.0' 481.9'	2.0' 1.5' 2.0' 2.0' 2.0'			
		<pre>-locally schistose graphite-mafic volcanic sections: generally at ~35% to 40° to core axis. -varioles @ ~500', 512'. -2 massive pyrite sections ~1 1/2" wide @ 513';. -massive, almost total graphite sections between ~515' and 517' (very crumbly, schistose, soft material) also between ~518.5' to 521.5'</pre>	40"	1007	43748	513.0'	515.0'	2.0'			
		-from 517' to 518.5' and 522.0' to 564.9'. -altered, silicified, carbonatized possible mafic metavolcanic?? light grey to buff to greenish, locally schistose; hard, with bright green wispy bands of chlorite? or fuchsite? parallel to schistosity (rough- ly ~40" to core axis); locally graphitic bands in between altered material; unit contains up to 5-10% fine-to coarse-grained pyrite as disseminations, blebs elongated parallel to schistosity and stringers.	407	107	43749 43750 43751 43752 43753 43754 43755 43756 43757 43758 43759	517.0' 518.5' 521.0' 522.0' 524.0' 526.0' 528.1' 530.0' 532.2' 535.0' 537.0'	518.5' 521.0' 522.0' 524.0' 526.0' 528.1' 530.0' 532.2' 535.0' 537.0' 539.0'	1.5' 2.5' 1.0' 2.0' 2.0' 2.1' 1.9' 2.2' 2.8' 2.0' 2.0'			

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ON DIAMOND DRILL HOLE LOG Project <u>Cairo - M-18</u>

Hole No. 1 Page 9 of 9

Foota	ge	ROCK TYPE AND DESCRIPTION	Core	7%		SAMPLE			Analyt	ical R	esult
			Angle	Sul-			-	Length	Au	Au	
From	10		to AX1S	pnides	Number	From		(feet)	ррь	oz/t	+
384.6'	563.9'		{	{	43760	539.0'	540.1'	1.1'	ſ	1	1
(conti	nued)				43761	540.1'	542.0'	1.9'			
ſ	1			{	43762	542.0'	544.0'	2.0'	{	{	1
					43763	544.0'	546.0'	2.0'			
1				1	43764	546.0'	548.0'	2.0'	{	1	1
1				· ·	43765	548.0'	550.0'	2.0'			
1	1			{	43766	550.0'	552.0'	2.0'	{	1	1
					43767	552.0'	555.0'	3.0'		1	
{	1		5'	ground	43768	555.0'	563.9'	4.0'	{	{	
			c	re							
ſ	{			(43769	563.9'	566.0'	2.1'	{	{	1
J	J]]]]]]
[-dark grey, graphilic section @ 539.1' to 540.0'					ł		1	1	1
ļ	1	with alternating layers of grey built coloured locally		1	Į .]]]	ļ	J	ļ
		cherty looking material; banding @ 25% to core axis.						ļ			
}	}	-very blocky from ~555' (5' of ground core from 555		}				}	}	}	}
		to 565')								}	
{	{			{	{	{ }		{	{	{	1
563.9'	593.0'	GABBRO (?)									1
1	1		{	1		{ {		ł	{	1	1
	1	-magnetic, grey to pinkish grey, fine-grained, con-									1
· · /	1	taining up to 3% pink to pinkish white calcite veins and		37%				· ·	1	{	1
		veinlets, up to 1/4" wide, randomly oriented; unit is						1		}	
4	1	strongly carbonatized (reacts to HCl); locally contains		1	{	{ {		{	}	{	{
		up to 3% fine-to locally coarse-grained disseminated						1	· ·	1	1
		pyrite; very blocky from 563.9' to end of hole.				1 1		1		1	
1	1			{	{	((1	{		{
		-upper contact @ 40° to core axis, sharp.	40°	1				1		1	1 · ·
[1			[[[[[(1
]	j	-unit is massive.]]]]	j]
	(-unit becomes supported area towards and of below		[1		1	
ļ	1	-unit becomes greenish grey towards end of hole;		29		ļļĮ]	1	
		still magnetic, containing about 1% to 2% disseminated		2/0						1	1
	}	pyrite and along stringers.		}		} }			ł	1	}
	593.01	END OF HOLE									1
				{				{	1		{
L	i	12 feet of BW casing left in hole.	1	1	1	1 1		i	I	I	1

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ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

DIAMOND DRILL HOLE LOG

PROJECT:	M-18, GRAND SAGUENAY MINES & MINERALS LTD.	HOLE NUMBER:	C-2
AREA:	CAIRO TOWNSHIP, MATACHEWAN AREA	LOCATION:	5 + 32'N, 13 + 75E
CLAIM NUMBER:	L757833	AZIMUTH:	330° AZ
CORE SIZE:	BQ	DIP:	-45°
DRILLED BY:	NOREX DRILLING	DATE:	MAY 18, 1984
LOGGED BY:	ROBERTA BALD	CASING:	14'
CORE STORED AT:	NOREX DRILLING WAREHOUSE PORCUPINE, ONTARIO	LENGTH:	200.0'
OBJECTIVE:	TO TEST I.P. ANOMALY	ACID TESTS:	@ 200' = -40°

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Roberta Bald

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DIAMOND DRILL HOLE LOG

Project <u>Cairo - M-18</u>

Hole No. 2 Page 1 of 2

Foot	age	ROCK TYPE AND DESCRIPTION	Core	7		SAMPLE			Analyt	ical Re	esult
]			Angle	Sul-				Length	Au	Au	
From	То		to Axis	phides	Number	From	То	(feet)	ppb	oz/t	
0'	14'	CASING									
14'	15.5'	RED SYENITE (?)									
		-dark red, porphyritic (~20%, 1/3" long white and dark red feldspar crystals, randomly oriented); with ~3% white to translucent quartz phenocrysts, with ~1-2% black, soft, chlorite, locally lath shaped up to ~1/4" long, with ~1% disseminated patches of yellowish green epidote (?); ~1% fine threadlike calcite veinlets, randomly oriented; trace fine-grained pyrite, disseminated.									
		-lower contact, sharp, slightly irregular but roughly @ 40% to core axis: gabbro chilled along contact, syenite is not chilled.	40‴								
15.5'	200.0'	GABBRO									
		-fine-to coarse-grained, strongly magnetic, massive, locally carbonatized (reacts to HCl) with ~1-2% calcite (white) veinlets, randomly oriented; grey to reddish grey caused by up to ~30% dark red feldspar crystals; up to ~1% fine-to medium-grained disseminated pyrite as blebs.		1%							
		-blocky core locally throughout.									
		-from 72.0' to 75.0': calcite + quartz + dark green chlorite (~25°) vein at ~20° to core axis: with ~2%	20."	27	43772	72.0'	75.0'	3.0'			
		coarse-grained pyrite blebs.			43773	122.1	124.0	1.9'			
		-local green epidote veins and patches			43774	157.0'	159.0'	2.0'			
											<u>1</u>

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DIAMOND DRILL HOLE LOG

Project <u>Cairo - M-18</u>

Hole No. 2 Page 2 of 2

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Foot	Footage ROCK TYPE AND DESCRIPTION		Core	7.			Analytical Result				
		-	Angle	Sul-		7	-	Length	Au	Au	
From	To		to Axis	phides	Number	From	To	(teet)	ррь	oz/t	┟╼╼╼╼╋
15.5' (Con	200.0' tinued)				43775	182.0'	184.0'	2.0'			
		<pre>@ ~196.0': becomes finer-grained, grey to slightly reddish grey, with ~1% fine-grained disseminated pyrite.</pre>		1%	43776	196.0	197.9	1.9			
	200.0'	END OF HOLE									
		14' of BW Casing left in hole.		1				А.			
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ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

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DIAMOND DRILL HOLE LOG

PROJECT:	M-18, GRAND SAGUENAY MINES & MINERALS LTD.	HOLE NUMBER:	C-3
AREA:	CAIRO TOWNSHIP, MATACHEWAN AREA	LOCATION:	4 + 07E, 6 + 75N
CLAIM NUMBER:	L757834	AZIMUTH:	315° AZ
CORE SIZE:	BQ	DIP:	-45°
DRILLED BY:	NOREX DRILLING	DATE:	MAY 20 TO 21, 1984
LOGGED BY:	ROBERTA BALD	CASING:	10'
CORE STORED AT:	NOREX DRILLING WAREHOUSE PORCUPINE, ONTARIO	LENGTH:	203.0'
OBJECTIVE:	TO TEST I.P. ANOMALY AT CONTACT BETWEEN SYENITE INTRUSION AND METASEDIMENTARY ROCKS.	ACID TESTS:	$@\ 203' = -41.5^{\circ}$

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DIAMOND DRILL HOLE LOG

Project <u>Cairo - M-18</u>

Hole No. 3 Page 1 of 3

Foot	age	ROCK TYPE AND DESCRIPTION	Core	7.		SAMPLE		Analyt	esult		
Busa			Angle	Sul-		7	_	Length	Au	Au	
From	10		to AX15	pnides	Number	From	To	(feet)	ррь	loz/t	├ ───┽
0'	10'	CASING									
10'	180'	PORPHYRITIC SYENITE									
		-coarse-grained, magnetic, dark grey with white to pink altered (carbonatized - reacts to HCl along fractures in feldspar crystals) feldspar phenocrysts up to 1/3" in diameter, lath to ellipsoidal to equant shaped;									
		-two gradational phases (?) of syenite: 1) mainly foliated, with 40% to 75% white to pink variably altered (carbonatized-saussuritized) feldspar crystals generally ellipsoidal shaped in a brownish-black biotite-rich foliated matrix. 2) mainly massive, with ~70% pink, relatively fresh feldspar crystals, lath to equant shaped, in matrix consisting of fine-grained green chlorite and black biotite crystals (up to ~1/5" diameter).									
		-unit contains trace coarse-grained chalcopyrite associated with calcite (white) veins and trace fine-to medium-grained disseminated pyrite.		tr.cp. tr.py.							
		-non-foliated syenite from 10' to 11'. -foliated syenite from 11' to 18.5'. -non-foliated syenite from 18.5' to ~35' (grada- tional into foliated syenite).									
	1	-foliated syenite from 35' to 53.6'.									
		@ 15', foliated @ 60° to core axis @ 45', foliated @ 50° to core axis	60** 50*		-						
		-foliated syenite contains ~3% white calcite veinlets and veins up to ~1/2" wide, locally parallel to									
				1			ł	1 1	ĺ		i I

ROBERT S. MIDDLETON EXPLORATION SERVICES INC. DIAMOND DRILL HOLE LOG

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Project <u>Cairo - M-18</u>

Hole No. 3 Page 2 of 3

Footage	ROCK TYPE AND DESCRIPTION	Core	%		SAMPLE			Analyt	cical Re	esult	I
From To		Angle to Axis	Sul- phides	Number	From	То	Length (feet)	Au ppb	Au oz/t		
10' 180' for (continued) on (ca fi 53 me 53 me 53 me 53 me 53 me 54 54 54 55 me 55 55 me 55 56 56 57 fi 56 57 fi 56 57 fi 56 57 fi 56 57 fi 56 57 fi 57 57 me	 bliation but commonly cross-cutting. @ 53.6' to 54.5': coarse-grained, pink syenite with hly "3% fine-grained mafic minerals, slightly foliated 50' to core axis. -from 54.5' to 65.5': foliated syenite including alcite rich section from 56.3' to 56.9' containing "2% line-to medium-grained disseminated pyrite. -65.5' to 68.3': coarse-grained syenite similar to 3.6' to 54.5; locally containing up to 1% fine-to edium grained disseminated pyrite. 68.3' to 100.6': foliated syenite, including some chistose sections, including a section from 95.6' to 7.2' similar to 53.6' to 54.5' containing up to 3% line-to medium-grained disseminated pyrite. 100.6' to 154.5': coarse-grained mostly massive yenite with short foliated sections; gradually becomes bliated. -blocky core @ ~140' -154.5' to 180': foliated syenite no longer agnetic from ~170' to 180'. -broken core from ~178.5' to 180'; and @ 181', 83', 185', 186', 186.5', 190'. -lower contact obscured by broken core and syenite secones very schistose. 	50~	2% 1% 3%	43785 43786 43787 43788 43789 43790 43791	54.5' 56.3' 56.9' 65.5' 93.7' 95.6' 97.2'	56.3 56.9' 58.9' 68.3' 95.6' 97.2' 99.4'	1.8' 0.6' 2.0' 2.8' 1.9' 1.6' 2.2'			ę	

ROBERT S. MIDDLETON EXPLORATION SERVICES INC. DI DIAMOND DRILL HOLE LOG

Project <u>Cairo - M-18</u>

Hole No. 3 Page 3 of 3

Foota	ıge	ROCK TYPE AND DESCRIPTION	Core	7%		SAMPLE			Analyt	ical Re	esult
From	To		Angle to Axis	Sul- phides	Number	From	То	Length	Au ppb	Au oz/t	
180'	189.5'	BORDER PHASE OF SYENITE?									
		-from 180' to 189.5': grey to pink, fine-grained, locally strongly carbonatized (reacts to HCl), non- magnetic with up to "3% quartz + calcite veinlets and veins (a 1" wide quartz + minor calcite vein) randomly oriented; up to "3% fine-grained disseminated pyrite; possibly a chilled phase of syenite? since contact appears gradational (core broken along contact) from schistose syenite with white feldspars gradually becom- ing less mafic towards pink, massive, fine-grained siliceous unit (less than 1% mafic minerals @ 189.5'); contact with next unit is obscured by broken core.		37	43792 43793 43794 43795	181.0 183.0 185.0 187.5	183.0 185.0 187.5 189.5	2.0' 2.0' 2.5' 2.0'			
189.5'	203.3'	METASEDIMENTARY ROCKS: -magnetic, grey to salmon coloured, medium-grained greywacke to conglomerate; strongly carbonatized (matrix reacts to HCl); massive to locally foliated (@ 198', foliated @ 55° to core axis); unit contains up to 5% pink matrix supported, rounded felsic clasts up to 1" long, clasts are equant to elliptical; in a clastic matrix consisting of ~40% pink siliceous clasts, ~40% quartz and ~2% mafic (black) mineral (magnetite?) in a fine-grained grey carbonatized matrix; unit locally contains up to ~2% pink to white calcite veins up to 3/4" wide, usually parallel to foliation; -trace fine-grained disseminated pyrite	55*	tr.	43796 43797 43798 43799	189.5 191.5 193.2 195.0	191.5 193.2 195.0 196.9	2.0' 1.7' 1.8' 1.9'			
	203.0'	END OF HOLE 10' of BW casing left in hole									

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Cainte **Ministry of** Report Natural of Work Resources #141 30 Minin 900 RESOURCES OMSTATE ナーハイフ # 403 - 8199 YON<u>GE</u> SZ. HORNHILL Onr 135206 Summary of Work Performance and Distribution of Credits Total Work Days Cr. claimed Work Days Cr. Mining Claim Mining Claim Mining Claim Work Work Days Cr. Days Cr. 793 DAYS Prefix Number Prefix Number Prefix Number 561730 for Performance of the following 45 650134 120 work. (Check one only) 120 650115 **B32** 60 Manual Work 650116 50,5 Shaft Sinking Drifting or other Lateral Work. 60 650117 Compressed Air, other Power driven or mechanical equip. 60 Power Stripping 97.5 Diamond or other Core drilling 132 BO Land Survey 57133 Sof Strips L650116 2757833 All the work was performed on Mining Claim(s): Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below) NOREX DRILLING 2TD BУ -, DRILLED P.O. BOX BA PON ICO YED PORCUPINE ONT. MAY 12-18, 1984 DRILL DATES CORE SIZE B.Q. 593 tz and .zootz = 793' DEPTH OF HOLES LARDER LAKE] (C-1) (C-2)REGEIVEM SADED-APR-3 APR - 3 1985 AM Date of Report t (Signature) 7 |8 |9 |10 |11 |12 | 1 | 2 | 3 | 4 | 5 | 6 Certification Verifying Report of Work I hareby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true. Name and Postal Address of Person Certifying PYKE RES 31 <u>3 r 2</u>M3 $\mathcal{D} \cdot \mathcal{R}$ ELAIR THORNH Date Certified Carti Table of Information/Attachments Required by the Mining Recorder Attachments Specific information per type Other information (Common to 2 or more types) Type of Work Manual Work NII Names and addresses of men who performed Shaft Sinking, Drifting or Work Sketch: these other Lateral Work manual work/operated equipment, together are required to show with dates and hours of employment. the location and extent of work in Compressed air, other power Type of equipment driven or mechanical equip. relation to the nearest claim post. Type of equipment and amount expended. Power Stripping Note: Proof of actual cost must be submitted Names and addresses of owner or operator within 30 days of recording. together with dates when drilling/stripping done. Work Sketch (as Diamond or other core Signed core log showing; footage, diameter of above) in duplicate drilling core, number and angles of holes. Nil Nil Name and address of Ontario land surveyer. Land Survey

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mayo .	1 J 7 25 180)	Mining	Act	Expenditu	res)".	#	140
Name and Postal Aress of Re	acorded Holder	0	1-2		Prospector's Lic	ence No. ノフマ	, -
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<u> 403-8</u>	199 YONGE	<u>St</u>	THORNH	ILL C	DNT -	<u>L3T 20</u>	:6
Summary of Work Perform Total Work Days Cr. claimed	ance and Distribution of Credit	Mork	Mining Claim	Mark	Mining	Claim	Mark
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for Performance of the followi work. (Check one only)	TO L 725180	98.17					
Manual Work	757834	/04.83					
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other Lateral Work.		_					
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mechanical equip.				- / (20)			
drilling							
Land Survey				* 1 million			
All the work was performed o	n Mining Claim(s): $\angle 75$	7834					
Required Information eg:	type of equipment, Names, Ad	dresses, etc. (S	See Table Below)			<u></u>	
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DRILL D	ATES : 1	MAY =	20-21,	1984	2		
CORE 5	ZE	BQ					
	a - 11.	4	·		APR	-3-1985	
DEPTH	OF HOLE -	203	FT	್ರೇರೇಶ	;ED		
LAT	RDER LAKE	(C -	3)	MAC. No),		
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1 / 10 [9] Certification Verifying Ber	10[1][2] 1[2] J [4] J [4] J [4] J		111002	9100	\mathcal{M}	1 YR	
I hereby certify that I have	a personal and intimate knowledge	of the facts set f	orth in the Report of	Work annex	ed hereto, havin	g performed ti	ne work
or witnessed same during a	nd/or after its completion and the a	annexed report is	true.		-		
Name and Postal Address of P D , D , DVP_2	erson Certifying ミニスノーアビック・	D MOZ	< THANK	. در استر ا	, Onir	1.35	2m2
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Table of Information/Atta	chments Required by the Mini	ng Recorder					
Type of Work	Specific information pe	r type	Other information (0	Common to 2	or more types)	Attach	ments
Manual Work						1	
Shaft Sinking, Drifting or other Lateral Work	NII .		Names and addresse manual work/opera	s of men wh sted aquipme	o performed nt, together	Work Sket	ch: these d to show
Compressed air, other power	Type of equipment		with dates and hour	rs of employ	ment.	the locatio	n and vork in
driven or mechanical equip.						relation to	the
Power Stripping	Type of equipment and amount Note: Proof of actual cost must	expended.				Tienrest cra	
, errer erripping	within 30 days of recording.		together with dates	when drillin	r operator g/stripping		
Diamond or other core drilling	Signed core log showing; footage core, number and angles of hole	a, diameter of s.	don e.			Work Sket above) in d	ch (as Iuplicate
Land Survey	Name and address of Ontario lar	nd surveyer.		Nil		N	il
768 (81/3)							





Ministry of Northern Development and Mines